HCD-GNZ333D/GNZ444D

SERVICE MANUAL

E Model

Ver. 1.4 2008.09

(Photo: HCD-GNZ444D)

- HCD-GNZ333D/GNZ444D are the tuner, deck, DVD and amplifier section in MHC-GNZ333D/GNZ333DL/GNZ444D.

DVD Section	Model Name Using Similar Mechanism	NEW
	Optical Pick-up Name	KHM-313CAB
Tape Deck Section	Model Name Using Similar Mechanism	HCD-EC55/EC77
	Tape Transport Mechanism Type	CS-21SC-901TP

SPECIFICATIONS

Amplifier section

The following are measured at AC 120, 127, 220, 240V 50/60 Hz

Front speaker:

Power output (rated)
72 W + 72 W (at 6 Ω, 1 kHz, 1% THD)

RMS output power (reference)
120 W + 120 W (per channel at 6 Ω, 1 kHz, 10% THD)

Subwoofer (HCD-GNZ444D only):

RMS output power (reference)
150 W (at 6 Ω, 80 Hz, 10% THD)

Inputs

AUDIO IN (stereo mini jack):
Voltage 700 mV, impedance 47 kilohms

Outputs

DIGITAL OUT (square optical connector jack):
Wavelength 650 nm

VIDEO OUT (phono jack):
Max. output level 1 Vp-p, unbalanced, Sync. negative load impedance 75 Ω

PHONES (stereo mini jack):
accepts headphones of 8 Ω or more

SUBWOOFER OUT (HCD-GNZ444D only)

Power consumption:
190 W

Dimensions (w/h/d):
Approx. 200 × 306 × 410 mm

Mass:
Approx. 8.0 kg

Disc player section

System
Compact disc and digital audio and video system

Laser
Semiconductor laser (DVD: λ=650 nm, CD: λ=790 nm)
Emission duration: continuous

Frequency response
DVD (PCM 48 kHz): 2 Hz – 22 kHz (±1dB)
CD: 2 Hz – 20 kHz (±0.5 dB)

Video color system format
NTSC and PAL

Tape deck section

Recording system: 4-track 2-channel, stereo

– Continued on next page –

DVD DECK RECEIVER

9-887-709-05
2008I04-1
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Sony Corporation
Audio&Video Business Group
Published by Sony Techno Create Corporation

SONY®

Tuner section
FM stereo, FM/AM superheterodyne tuner

FM tuner section
Tuning range:
87.5 – 108.0 MHz (50 kHz step)
Antenna
FM lead antenna
Antenna terminals
75 Ω unbalanced
Intermediate frequency
10.7 MHz

AM tuner section
Tuning range:
Saudi Arabian and Russian models:
531 – 1,602 kHz (with the interval set at 9 kHz)
Other models:
531 – 1,602 kHz (with the interval set at 9 kHz)
530 – 1,610 kHz (with the interval set at 10 kHz)
Antenna
AM loop antenna
Antenna terminals
External antenna terminal
Intermediate frequency
450 kHz

General
Power requirements:
Russian model:
AC 220 – 240 V, 50/60 Hz
Saudi Arabian model:
AC 120 – 127, 220 – 240 V, 50/60 Hz, adjustable with voltage selector
Other models:
AC 120, 220 or 230 – 240 V, 50/60 Hz, adjustable with voltage selector

Design and specifications are subject to change without notice.

U.S. and foreign patents licensed from Dolby Laboratories.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 ˚C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 ˚C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

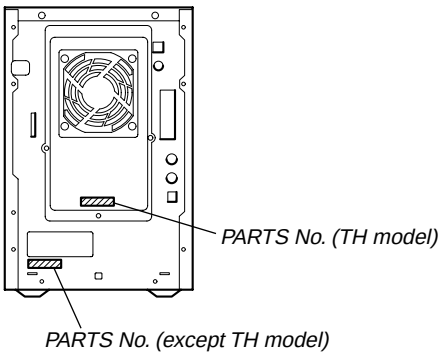
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is claassified as a CLASS 1 LASER product. This label is located on the rear exterior.

MODEL IDENTIFICATION

– BACK PANEL –



Model	Part No.
GNZ333D: SP	2-898-299-0☐
GNZ444D: E13	2-898-299-1☐
GNZ333D: EA	2-898-299-2☐
GNZ333D: E13	2-898-299-3☐
GNZ333D: E3, E15	2-898-299-4☐
GNZ333D: PH	2-898-299-5☐
GNZ333D: TH	2-898-299-6☐
GNZ333D: E12	2-898-299-7☐

- Abbreviation
  E3 : 240 V AC area in E model
  E12 : 220-240 V AC area in E model
  E13 : Russian model
  E15 : Iran model
  EA : Saudi Arabia model
  PH : Philippine model
  SP : Singapore model
  TH : Thai model

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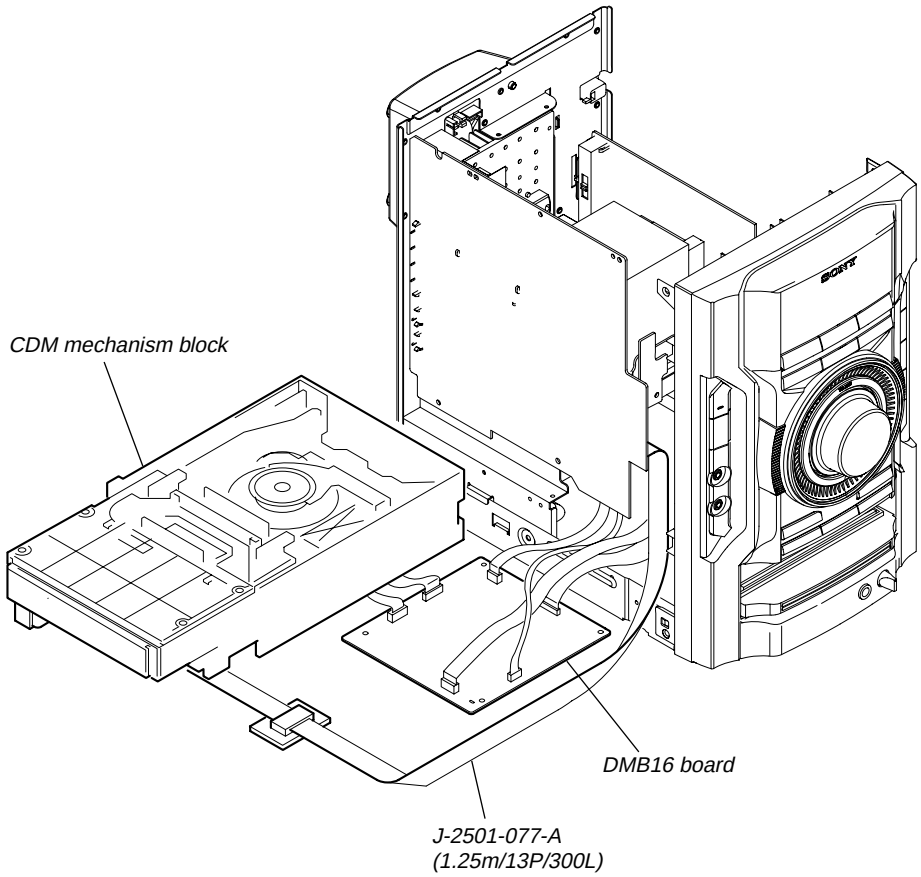
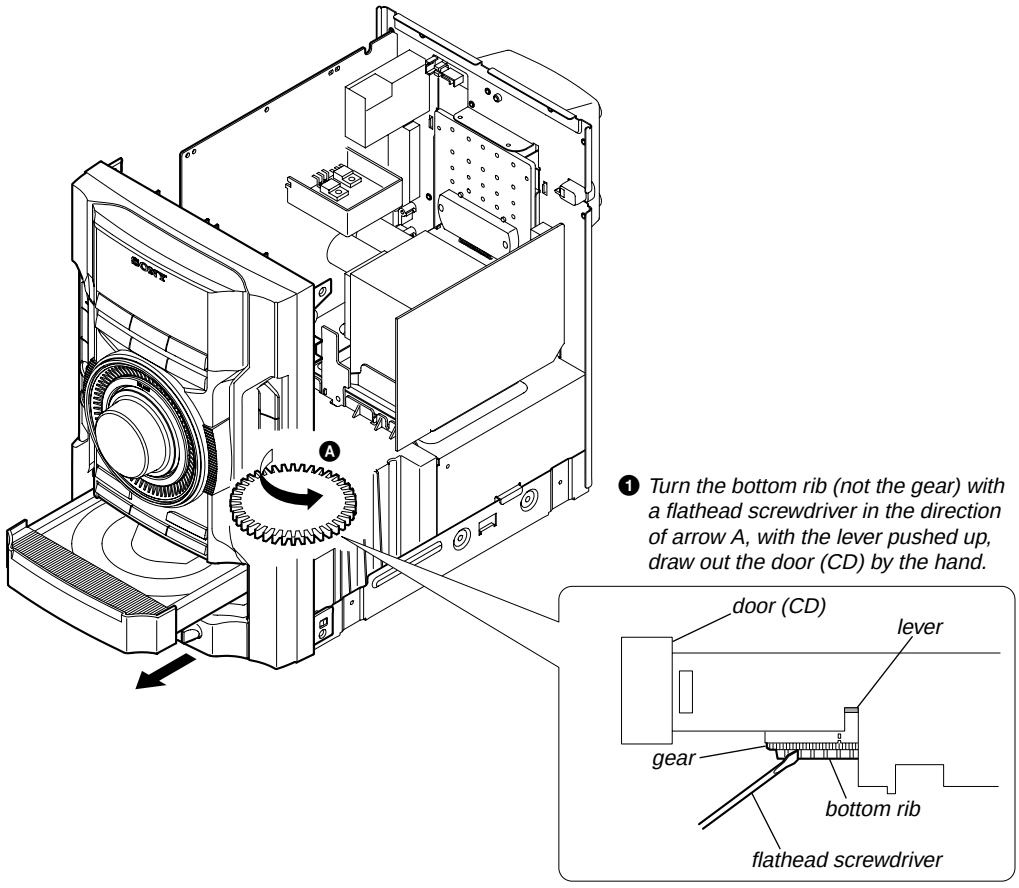
SECTION 1
SERVICING NOTES

1. CDM SERVICE POSITION

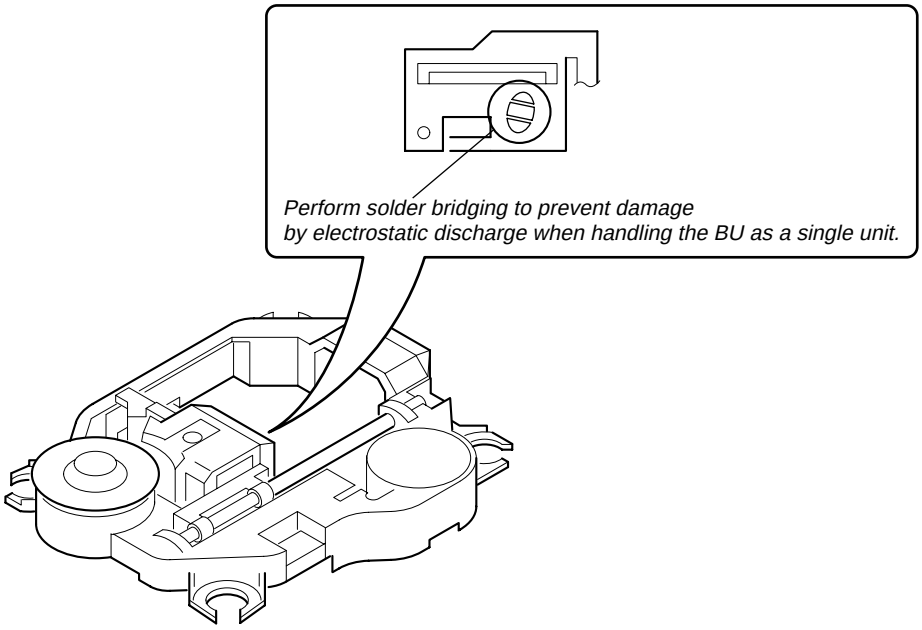


2. OPENING THE CD TRAY MANUAL

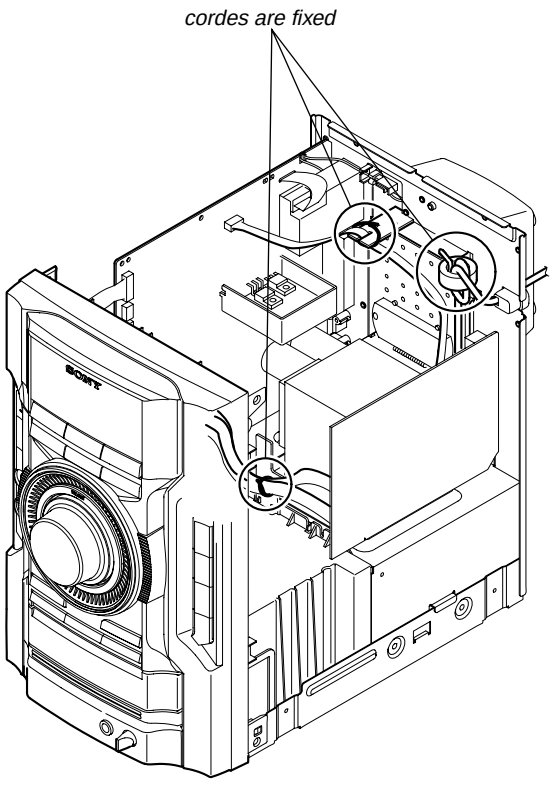


❶ *Turn the bottom rib (not the gear) with a flathead screwdriver in the direction of arrow A, with the lever pushed up, draw out the door (CD) by the hand.*

3. NOTE FOR HANDLING THE BU



4. ARRANGEMENT OF THE CORD



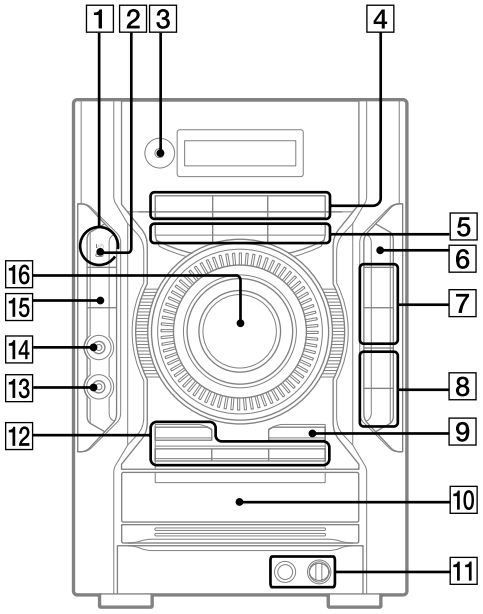
SECTION 2
GENERAL

This section is extracted from instruction manual.

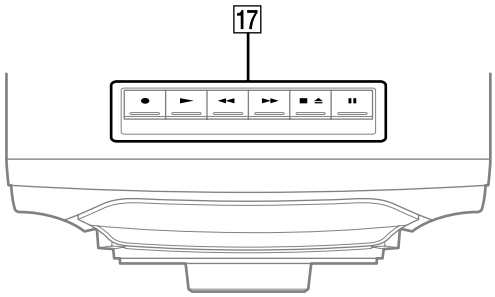
Guide to parts and controls

This manual mainly explains operations using the remote, but the same operations can also be performed using the buttons on the unit having the same or similar names.

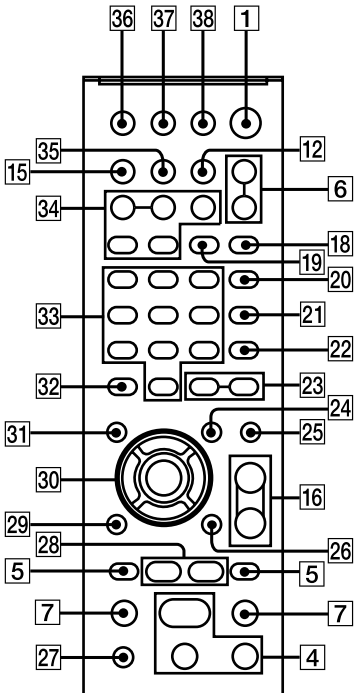
Front panel



Top panel



Remote control



1
Unit: I/⏻ (on/standby) (24, 25, 60, 70, 85)
Press to turn on the system.
Remote: TV I/⏻[2] (on/standby) (23)
Press to turn on the TV.

2
STANDBY indicator (78)
Lights up when the system is turned off.

3
IR Receptor

4
Unit: DVD ► (play) (28)
Press to select the DVD function.
Press to start playback of a disc.
❚❚ (pause) (29)
■ (stop) (29)
Press to stop or pause playback.
Remote: ▷[1] (play) (28, 35, 43, 52)
Press to start playback.

5
Unit: TUNER/BAND (59, 60)
Press to select the TUNER function.
Press to switch among FM and AM band.
PRESET +/– (59)
Press to select the preset station.
I◄◄ /►►I (go backward/forward) (29, 33, 44)
Press to select a track, chapter or video file.

Continued

Remote: TV CH +/– [2] (23)
Press to change the TV channels.

6
FUNCTION +/– (23, 25, 28, 59, 61, 66)
Press to select the function.

7
TUNING +/– (59, 60)
Press to tune in the desired station.
Unit: ◄◮/◭► (59, 60)
Remote: SLOW ◄◮/◭► (29)
Press to watch the slow-motion play.
◀◀/▶▶ (rewind/fast forward) (29)
Press to find a point in a track, chapter or video file.

8
DSGX (64)
Press to reinforce the bass.
EQ (64)
Press to select the sound effect.

9
⏏ (open/close) (28)
Press to eject the disc.

10
Disc tray

11
MIC LEVEL (63, 66)
Turn to adjust the microphone volume.
MIC jack (66)
Connect to a microphone.

12
Unit: DISC SKIP/EX-CHANGE (28, 30, 62)
Press to select a disc. Press to exchange a disc while playing.
Remote: DISC SKIP (30)
Press to select a disc.
Unit: DISC 1 – 3 (30)
Press to select a disc. Press to switch to the DVD function from other function.

13
PHONES jack
Connect the headphones.

14
AUDIO IN jack (76)
Connect to an optional audio component.

15
DISPLAY (24, 60, 71, 72)
Press to display the disc information or clock in the front panel display.

16
Unit: VOLUME (28, 70)
Turn to adjust the volume.
Remote: TV VOL +/— [1)2)] (23)
Press to adjust the TV volume.
VOLUME +/— [1)] (28, 70)
Press to adjust the volume.

17
● (record)/► (play)/◄◄ (rewind)/►► (fast forward)/■⏏ (stop/eject)/❚❚ (pause) (61, 62)
Press to operate the tape functions.

18
PICTURE NAVI (41)
Press to select the VIEWER format for searching the chapters, titles and tracks.
Press to display the thumbnail pictures.

19
REPEAT/FM MODE (38, 60)
Press to listen to a disc, a single track or file repeatedly.
Press to select FM reception mode (monaural or stereo).

20
AUDIO (31, 66, 75)
Press to display the current audio signal on the TV screen.

21
SUBTITLE (30)
Press to switch the language of the subtitle (DVD VIDEO).
D. TUNING (60)
Press to switch to the direct tuning mode.

Continued

22
ANGLE (30)
Press to change the angle (DVD VIDEO with multi-angles only).

23
+/— (29)
Press to select an album.

24
DVD/TUNER MENU (39, 45, 59)
Press to display the menu items on the TV screen.
Press to preset the radio station.

25
SOUND FIELD (64)
Press to select the sound field for the surround sound.

26
DISPLAY (26, 34, 39, 46, 48, 49, 54, 67, 75, 86)
Press to display the Control Menu on the TV screen.

27
TV[2)] (23)
Press to operate the TV functions.

28
ADVANCE •→ (29)
Press to advance the current scene during playback.
REPLAY ←• (29)
Press to replay the previous scene during playback.
◄II STEP/ STEP II► (29)
Press to play one frame at a time when playback is paused.

29
RETURN (33)
Press to return to the previous menu on the TV screen.

30
↑/↓/←/→ (24, 25, 34, 36, 37, 39, 43, 70)
Press to select the menu items.
ENTER (24, 43, 59)
Press to enter the settings.

31
DVD TOP MENU (39)
Press to display the DVD title on the TV screen.

32

CLEAR (25, 27, 35, 37, 38, 40, 45)

Press to delete a pre-programmed track or file.

-/–[2)]

Press to enter a single digit or double digit number.

33

Numeric buttons[1)] (23, 29, 32, 39, 51, 60)

Press to select a track, chapter or video file.

Press to enter a password or passcode.

10/0[2)]

Press to enter a double digit number.

34

KEY CONTROL (69)

Press to change the key to suit your vocal range.

SCORE (68)

Press to select the difficulty level for scoring mode.

KARAOKE MODE (66)

Press to select the Karaoke mode.

KARAOKE PON (67)

Press to activate the KARAOKE PON function.

35

TIME/TEXT (72, 74)

Press to change the information in the front panel display.

36

TV INPUT[2)] (23)

Press to switch the input sources.

SLEEP (27, 70)

Press to set the Sleep Timer.

37

TIMER MENU (24, 70)

Press to set the clock and the timers.

38

THEATRE SYNC (27)

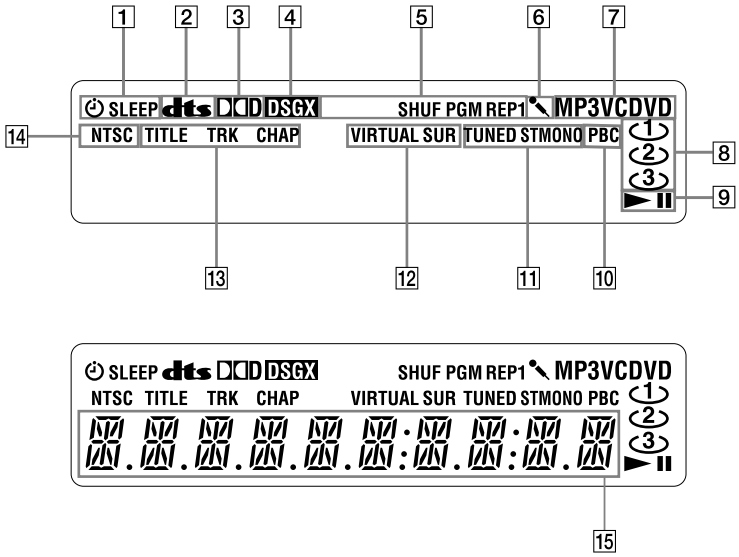
Press to activate the THEATRE SYNC function.

[1)] The numeric button 5 32, TV VOL + 16, VOLUME + 16 and ▷ 4 buttons have a tactile dot. Use the tactile dot as a reference when operating the system.

[2)] This button is used to operate a Sony TV. For details, see "Operating a Sony TV" (page 23).

Continued

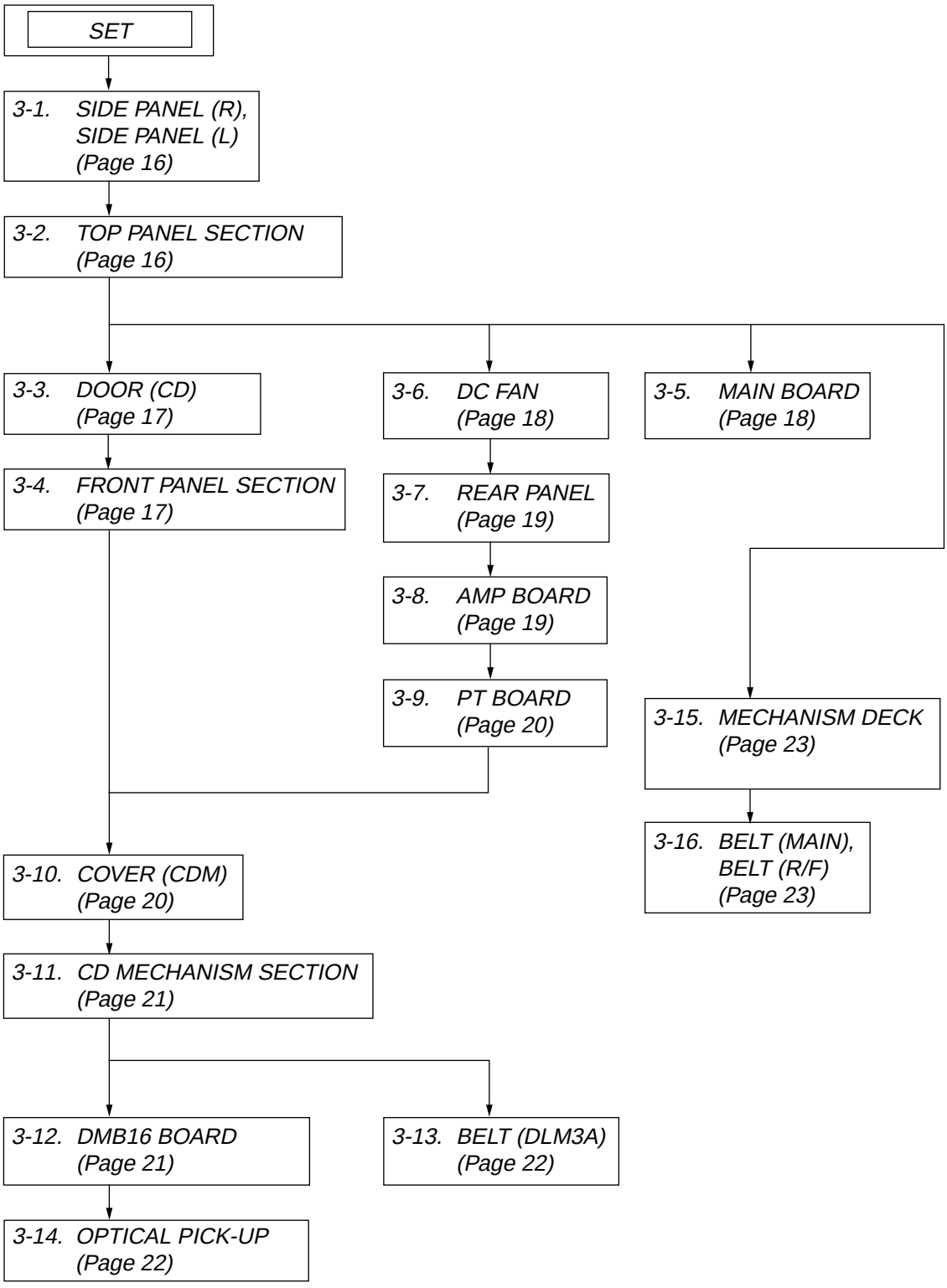
Display



1 Lights up when timer is set. (70)
2 Lights up when DTS is selected. (57)
3 Lights up when Dolby Digital is selected. (57)
4 Lights up when DSGX is turned on. (64)
5 Indicates the selected play mode. (34)
6 Lights up when the Karaoke Mode is turned on. (66)
7 Indicates the type of disc being played back. (28)
8 Indicates the disc presence.
9 Indicates the Playback status.
10 Lights up when playing VIDEO CD with PBC. (32)
11 Lights up when a station is tuned in. (59)
12 Indicates the selected sound field effect. (64)
13 Lights up when the title/track/chapter number is displayed.
14 Lights up when the output video signal is NTSC. (22)
15 Displays the text information.

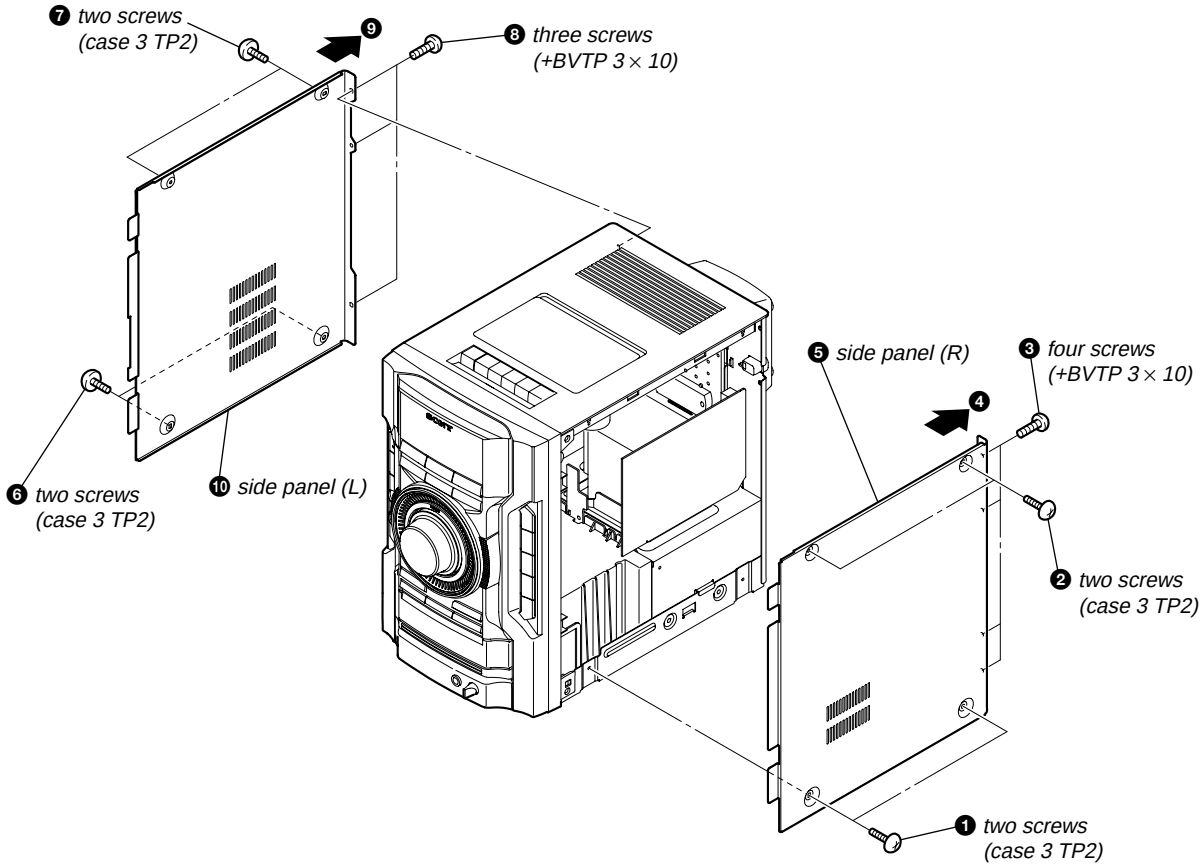
SECTION 3
DISASSEMBLY

Note: Disassemble the unit in the order as shown below.

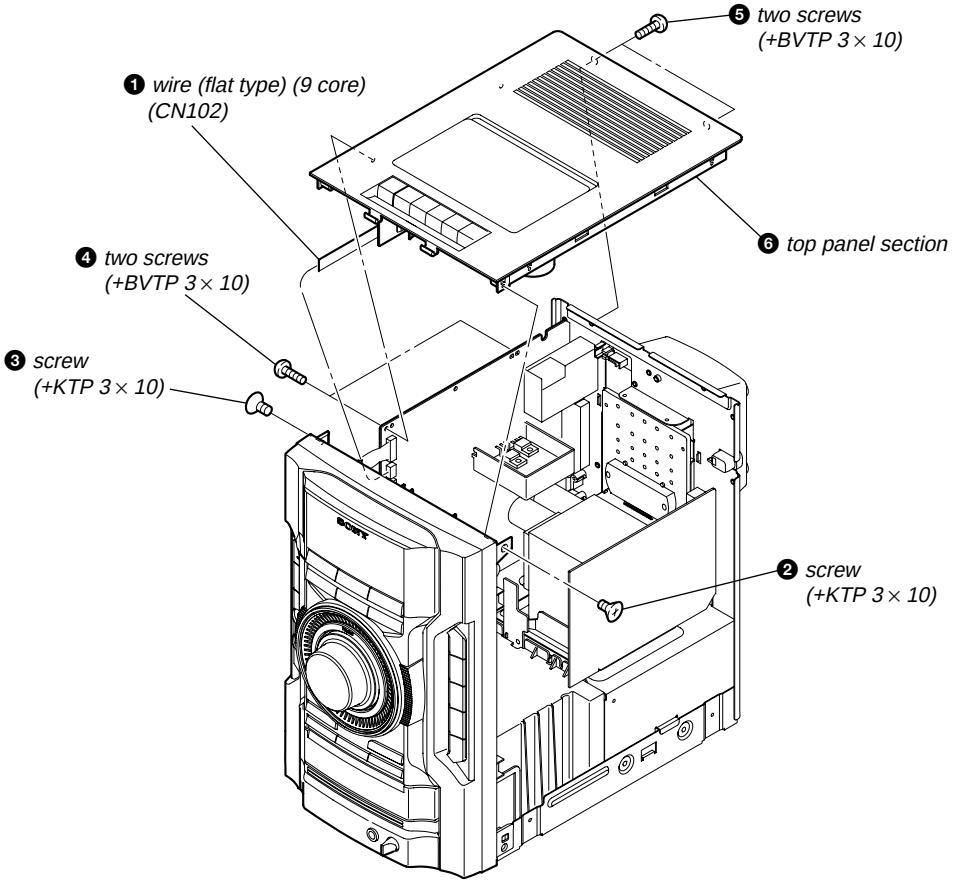

SET
3-1. SIDE PANEL (R), SIDE PANEL (L) (Page 16)
3-2. TOP PANEL SECTION (Page 16)
3-3. DOOR (CD) (Page 17)
3-4. FRONT PANEL SECTION (Page 17)
3-6. DC FAN (Page 18)
3-7. REAR PANEL (Page 19)
3-8. AMP BOARD (Page 19)
3-9. PT BOARD (Page 20)
3-5. MAIN BOARD (Page 18)
3-15. MECHANISM DECK (Page 23)
3-16. BELT (MAIN), BELT (R/F) (Page 23)
3-10. COVER (CDM) (Page 20)
3-11. CD MECHANISM SECTION (Page 21)
3-12. DMB16 BOARD (Page 21)
3-13. BELT (DLM3A) (Page 22)
3-14. OPTICAL PICK-UP (Page 22)

Note: Follow the disassembly procedure in the numerical order given.

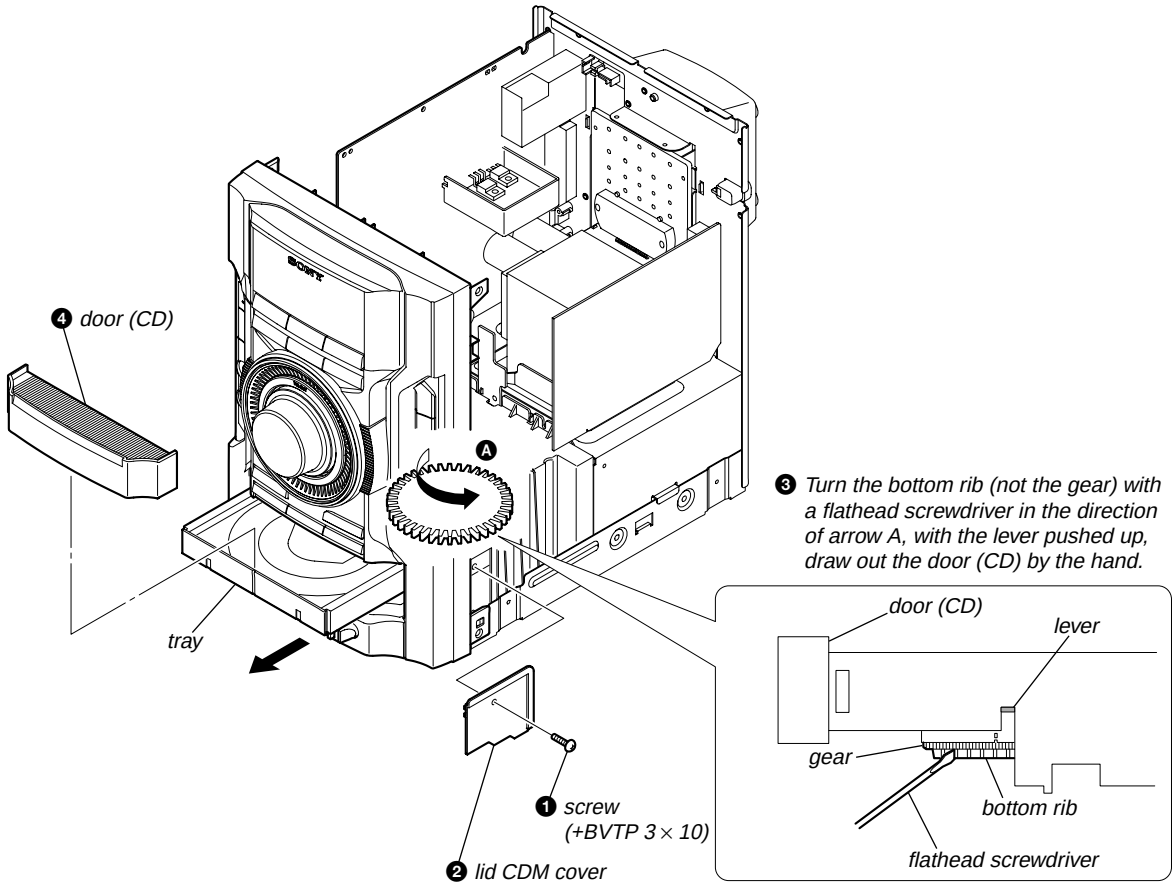
3-1. SIDE PANEL (R), SIDE PANEL (L)



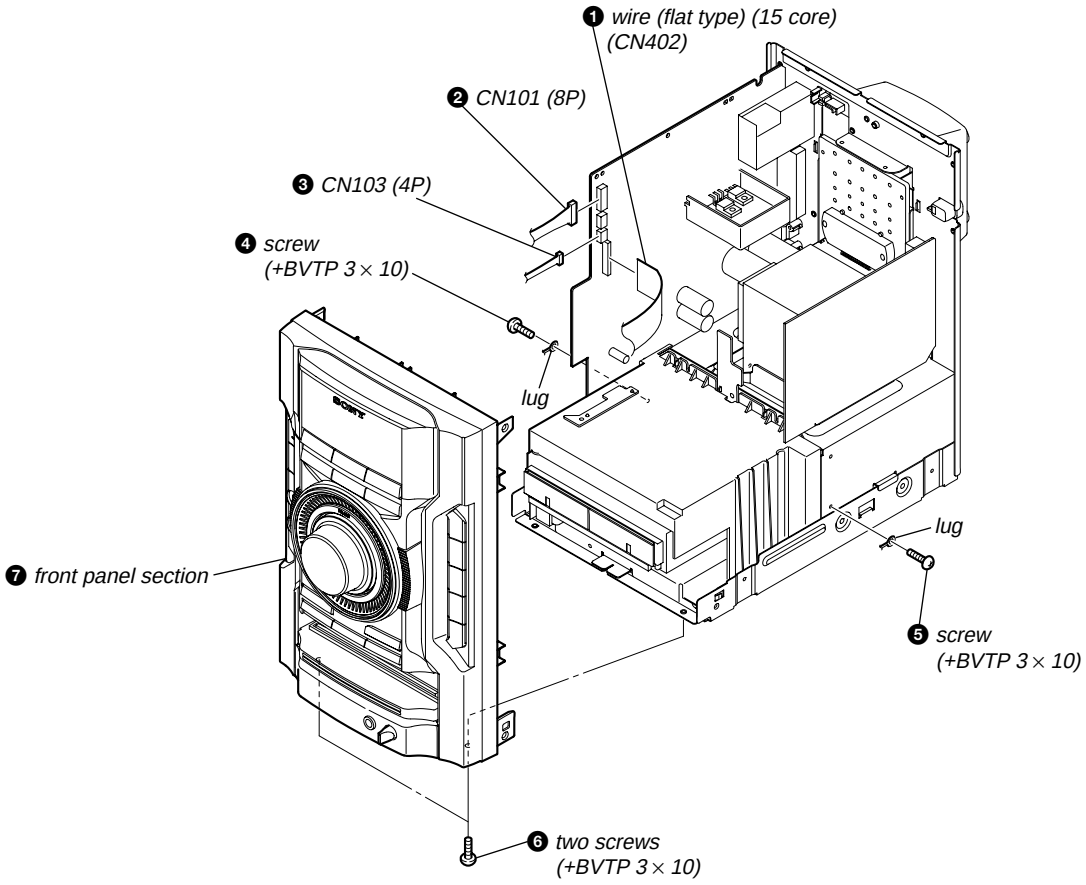
3-2. TOP PANEL SECTION



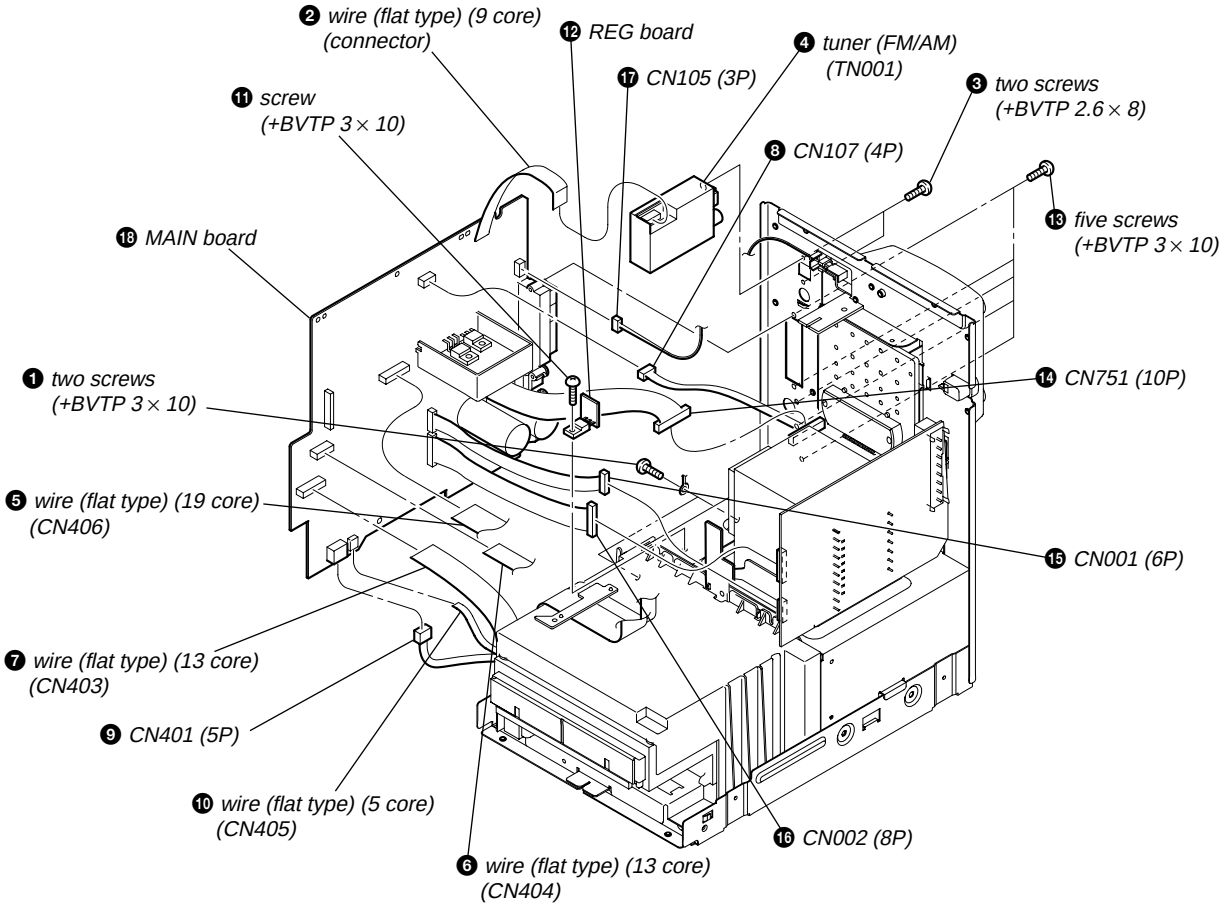
3-3. DOOR (CD)


❹ door (CD)
A
tray
❸ Turn the bottom rib (not the gear) with a flathead screwdriver in the direction of arrow A, with the lever pushed up, draw out the door (CD) by the hand.
door (CD)
lever
gear
bottom rib
flathead screwdriver
❶ screw (+BVTP 3 × 10)
❷ lid CDM cover

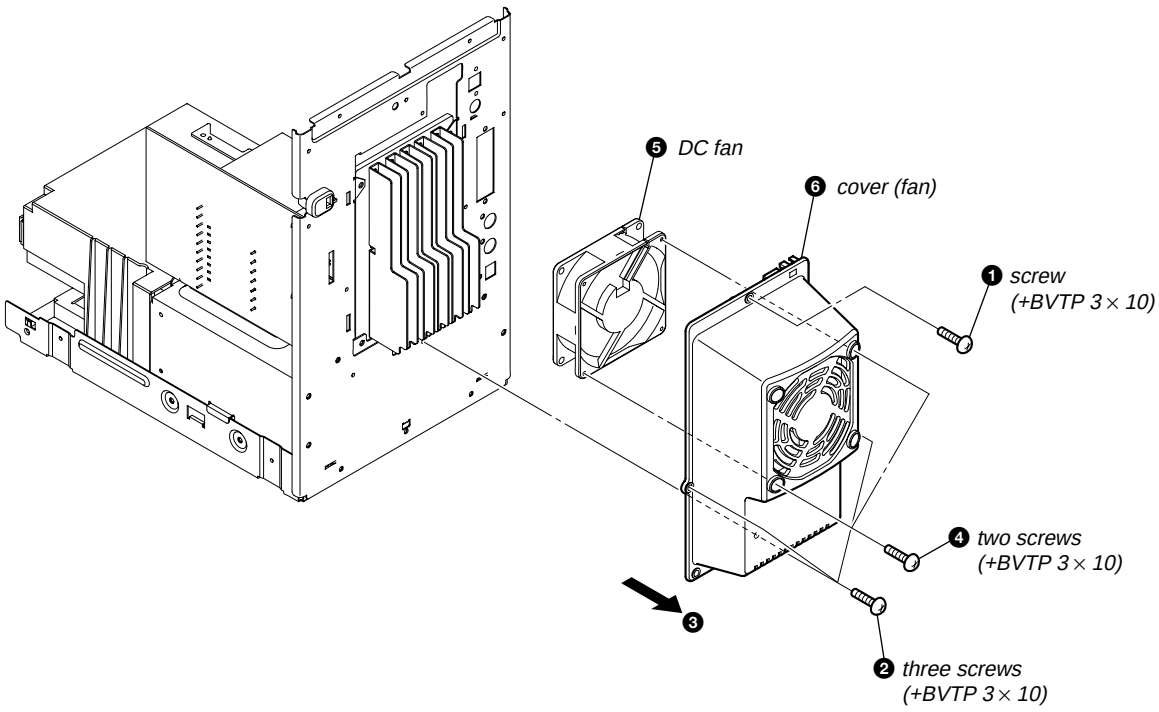
3-4. FRONT PANEL SECTION


❶ wire (flat type) (15 core) (CN402)
❷ CN101 (8P)
❸ CN103 (4P)
❹ screw (+BVTP 3 × 10)
lug
lug
❼ front panel section
❺ screw (+BVTP 3 × 10)
❻ two screws (+BVTP 3 × 10)

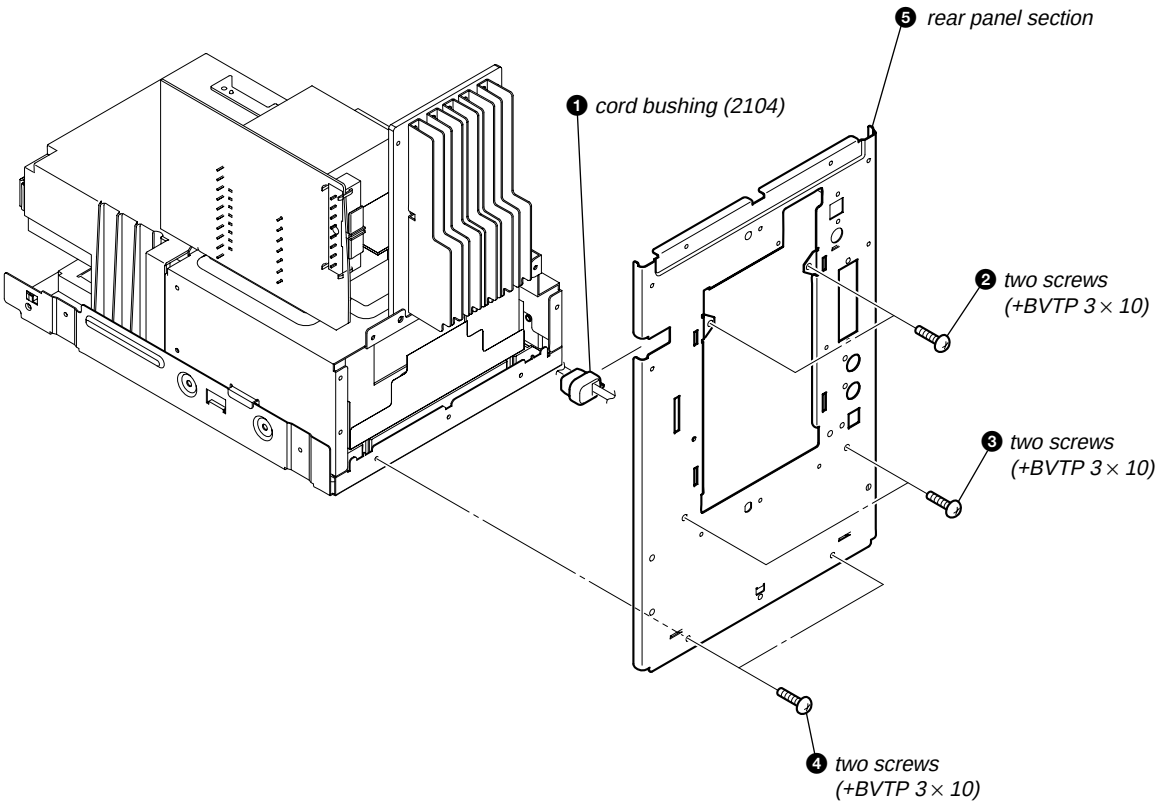
3-5. MAIN BOARD


❷ wire (flat type) (9 core) (connector)
⓬ REG board
❹ tuner (FM/AM) (TN001)
⓱ CN105 (3P)
❸ two screws (+BVTP 2.6 × 8)
⓫ screw (+BVTP 3 × 10)
❽ CN107 (4P)
⓭ five screws (+BVTP 3 × 10)
⓲ MAIN board
❶ two screws (+BVTP 3 × 10)
⓮ CN751 (10P)
❺ wire (flat type) (19 core) (CN406)
⓯ CN001 (6P)
❼ wire (flat type) (13 core) (CN403)
❾ CN401 (5P)
❿ wire (flat type) (5 core) (CN405)
⓰ CN002 (8P)
❻ wire (flat type) (13 core) (CN404)

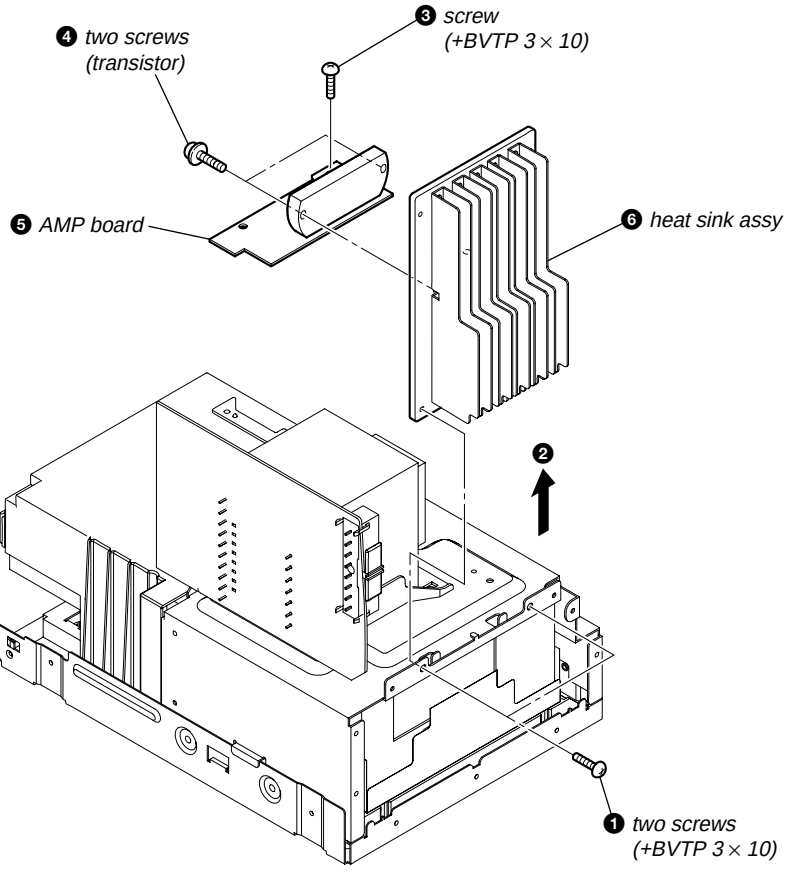
3-6. DC FAN



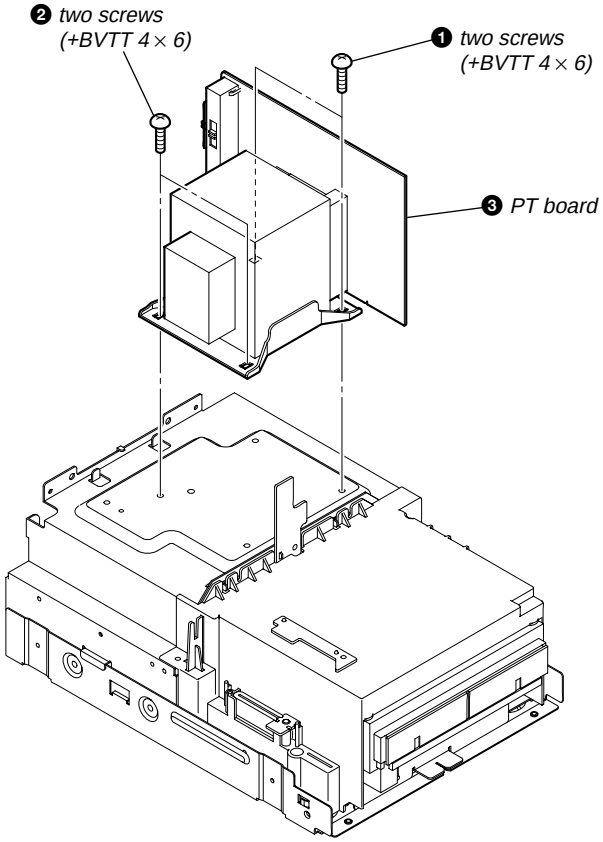
3-7. REAR PANEL



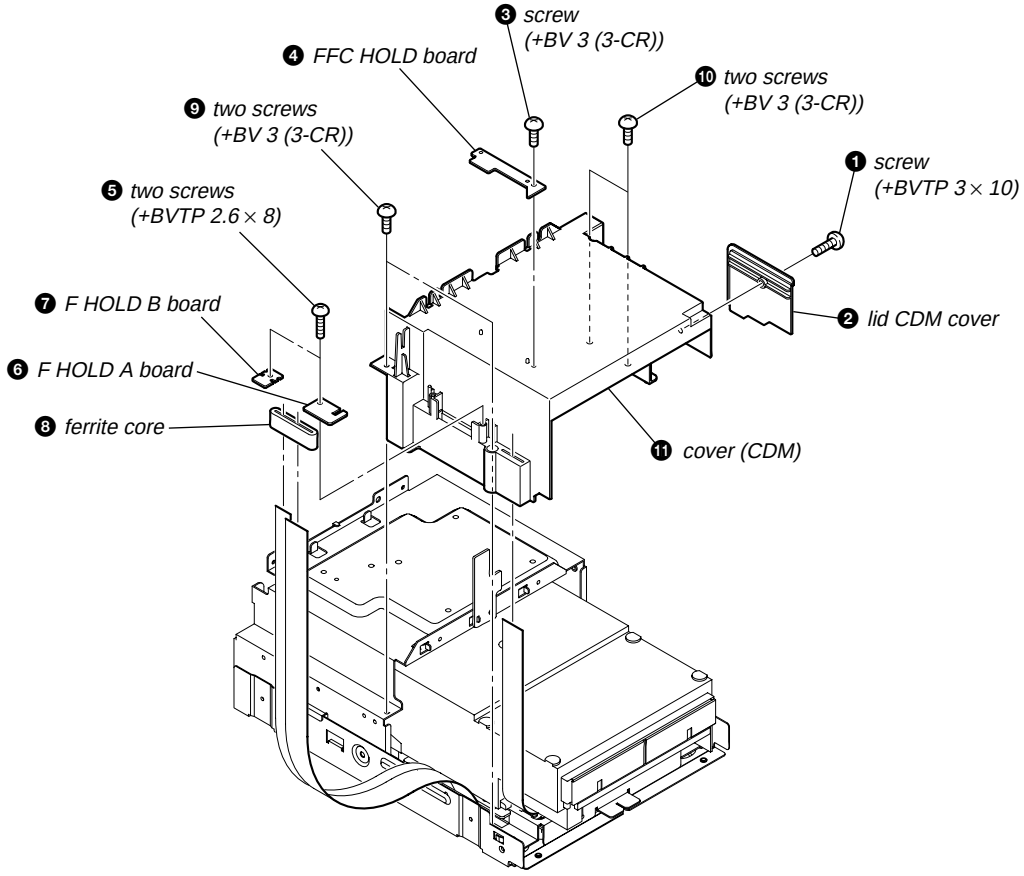
3-8. AMP BOARD



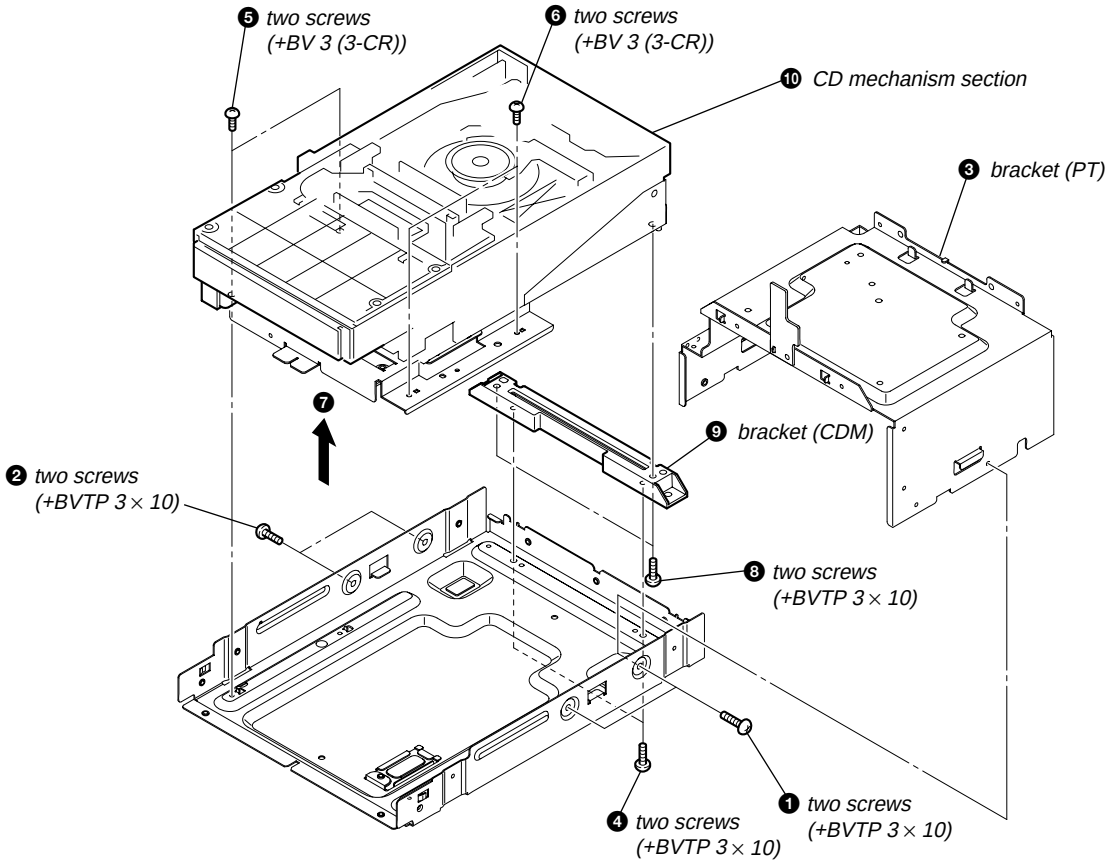
3-9. PT BOARD



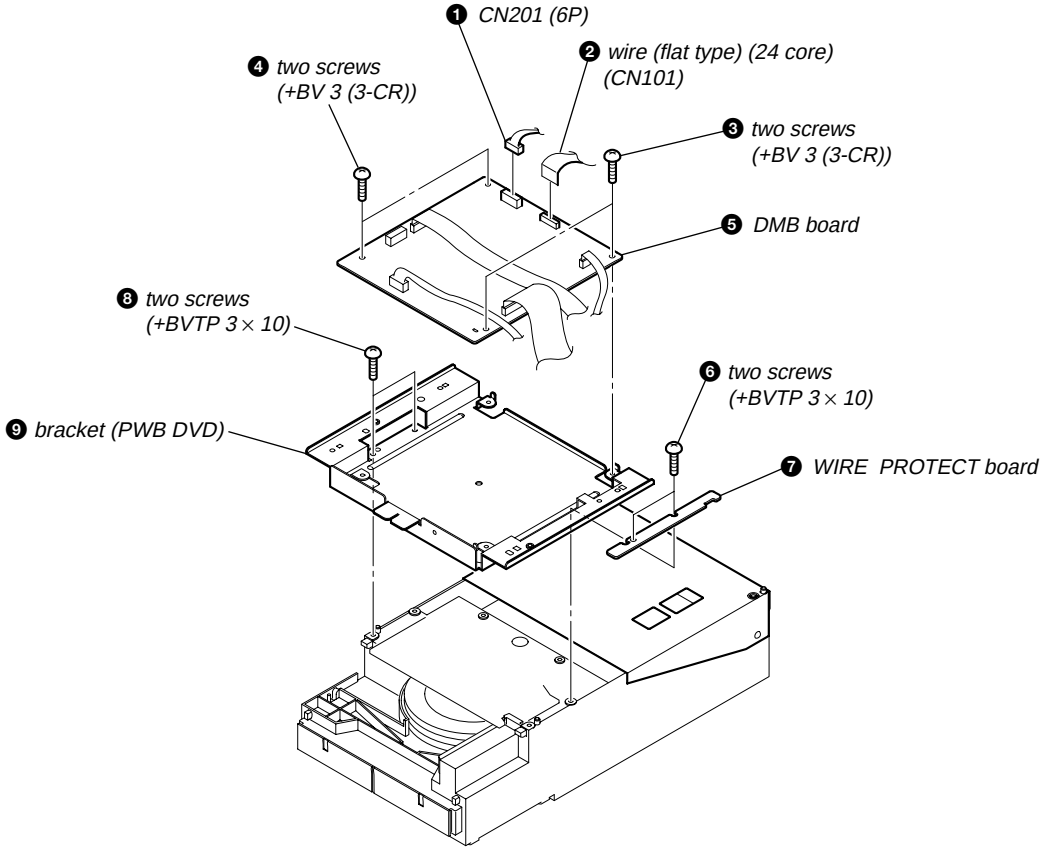
3-10. COVER (CDM)



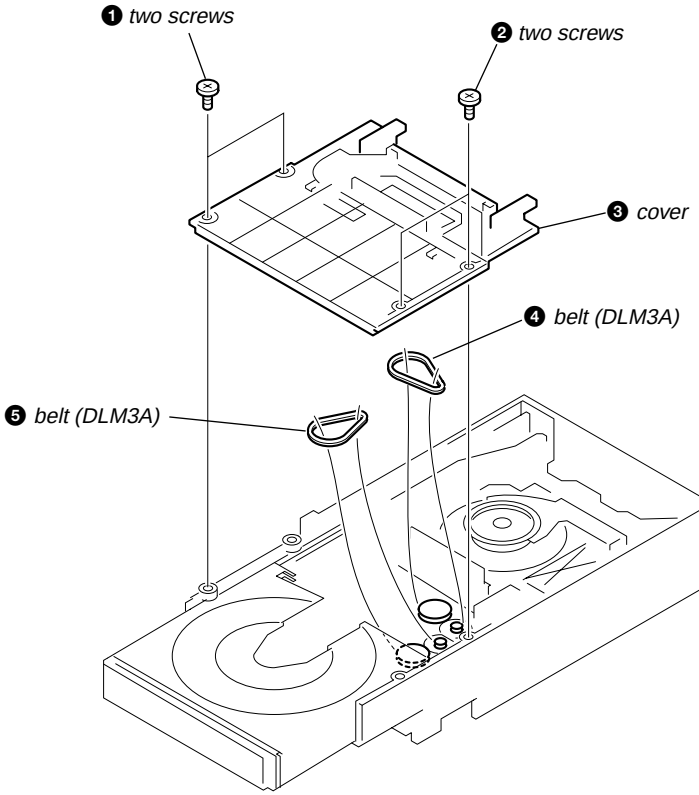
3-11. CD MECHANISM SECTION


❺ two screws (+BV 3 (3-CR))
❻ two screws (+BV 3 (3-CR))
❿ CD mechanism section
❸ bracket (PT)
❼
❾ bracket (CDM)
❷ two screws (+BVTP 3× 10)
❽ two screws (+BVTP 3× 10)
❶ two screws (+BVTP 3× 10)
❹ two screws (+BVTP 3× 10)

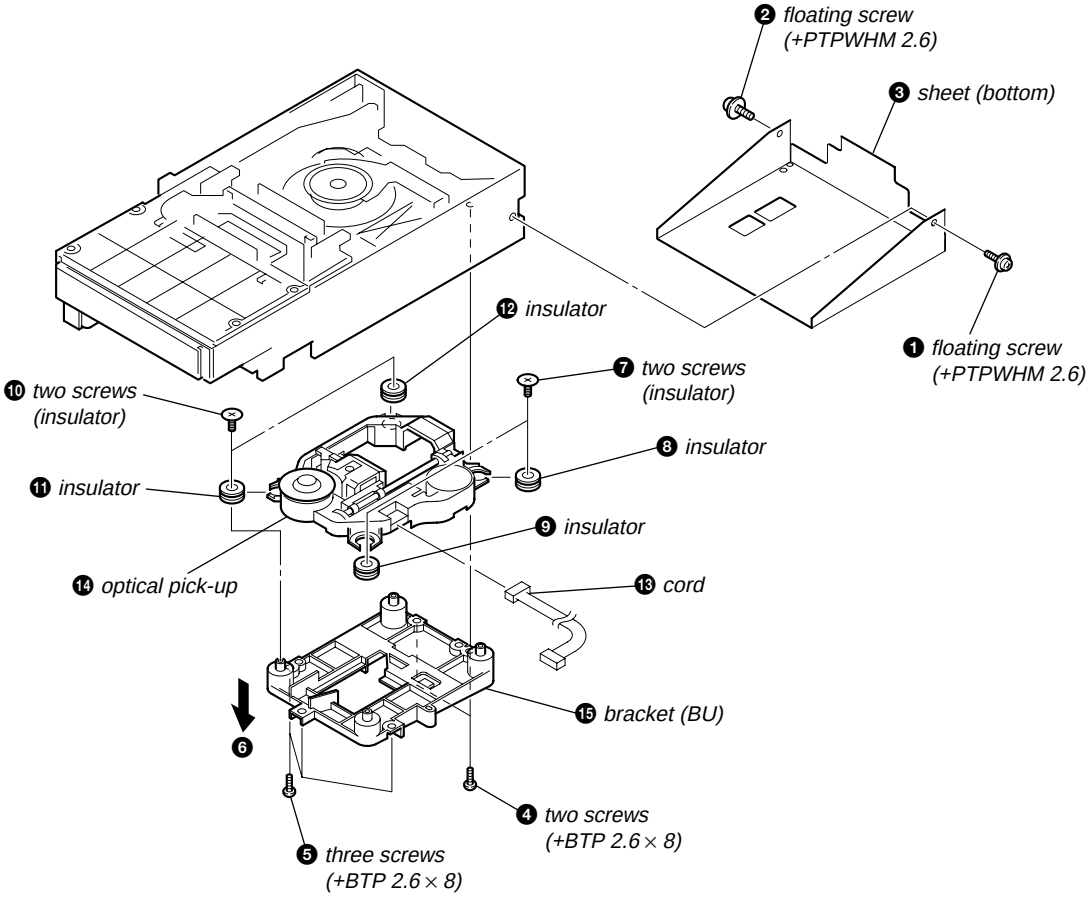
3-12. DMB16 BOARD


❶ CN201 (6P)
❷ wire (flat type) (24 core) (CN101)
❹ two screws (+BV 3 (3-CR))
❸ two screws (+BV 3 (3-CR))
❺ DMB board
❽ two screws (+BVTP 3× 10)
❻ two screws (+BVTP 3× 10)
❾ bracket (PWB DVD)
❼ WIRE PROTECT board

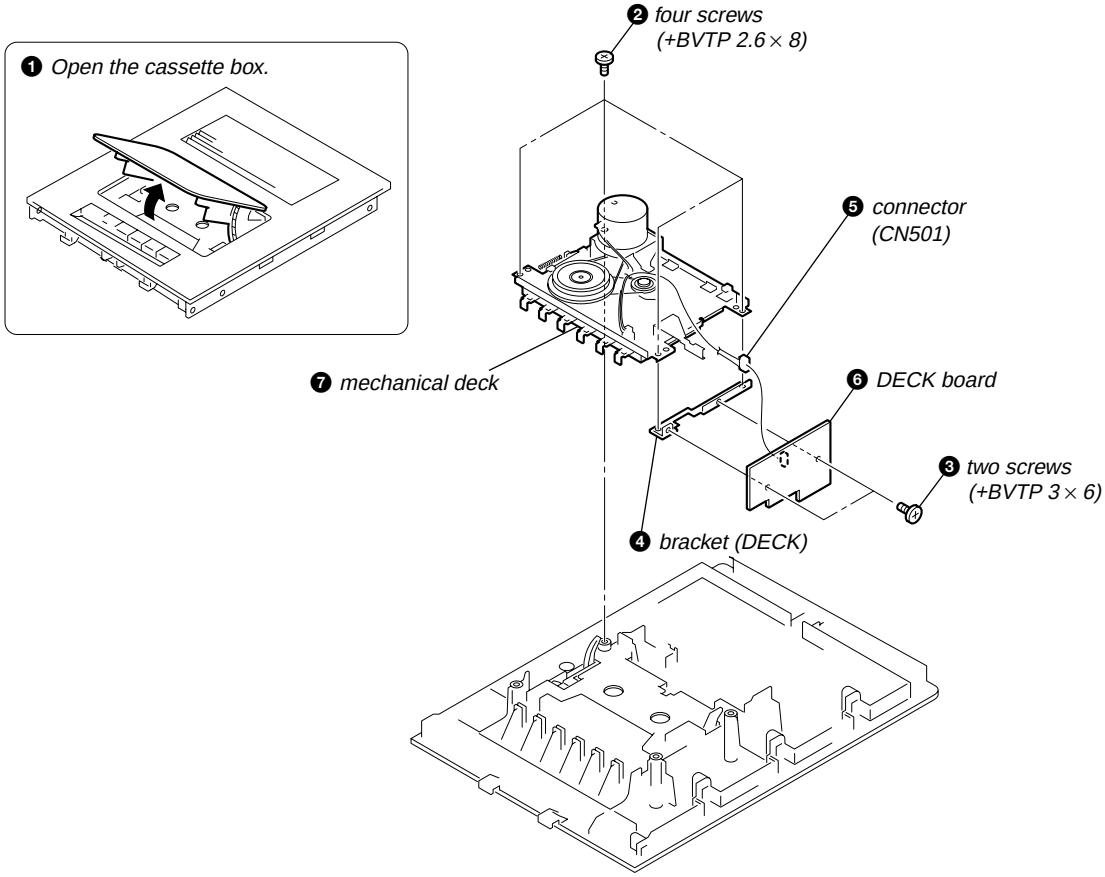
3-13. BELT (DLM3A)



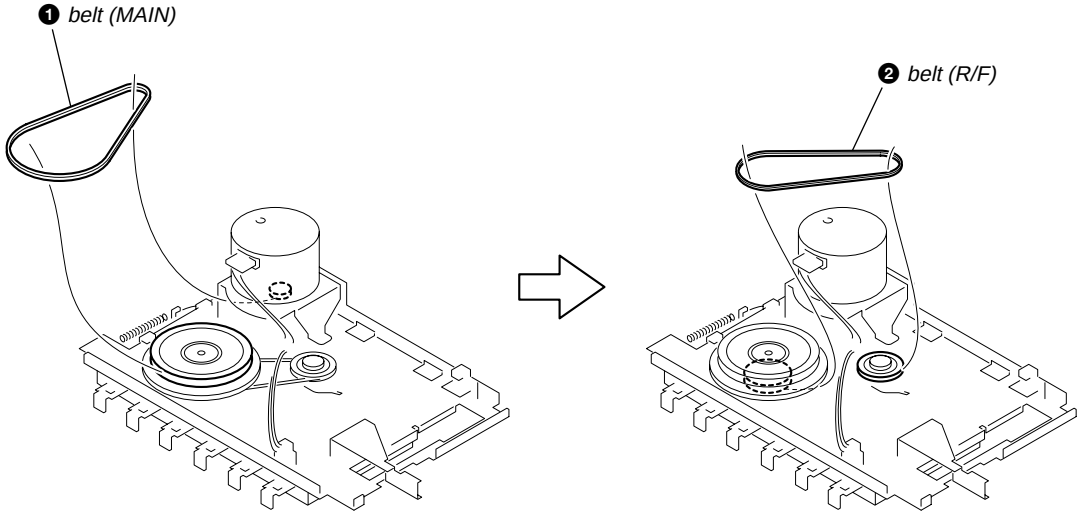
3-14. OPTICAL PICK-UP



3-15. MECHANISM DECK


❶ Open the cassette box.
❷ four screws (+BVTP 2.6 × 8)
❺ connector (CN501)
❼ mechanical deck
❻ DECK board
❸ two screws (+BVTP 3 × 6)
❹ bracket (DECK)

3-16. BELT (MAIN), BELT (R/F)



SECTION 4
TEST MODE

[PANEL TEST MODE]

- This mode is used to check the LCD display, LEDs, keys, VOLUME jog and OPERATION DIAL jog, model, destination, software version and VACS level.

Procedure:

1. Press ■ button, DISPLAY button and ❚❚ button simultaneously.
2. All LEDs and segments in LCD display are lighted up. All LEDs are lighted up in red.
3. When you want to enter to the software version dispaly mode, press FUNCTION button. The model information appears on the fluorescent indicator tube. “GRL2D” is shown for HCD-GNZ333D and “GRL4D” is shown for HCD-GNZ444D. Press DISC 1 button again to view the destination information.
4. Each time DISC 1 button is pressed, the display changes from MC version, SYS version, UI version, DVD version, CDMA version, CDMB version, ST version, TA version, TM version, TC version in this order, and returns to the model information display.
5. When DISC 3 button is pressed while the version numbers are being displayed except model and destination, the date of the software creation appears. When DISC 3 button is pressed again, the display returns to the software version display. When DISC 1 button is pressed while the date of the software creation is being displayed, the date of the software creation is displayed in the same order of software version display.
6. Press DISC 2 button, the key check mode is activated.
7. In the key check mode, the LCD displays “K 0 V0 J0”.
   Each time a button is pressed, “K” value increases. However, once a button has been pressed, it is no longer taken into account.
   “V” value increases in the manner of 0, 1, 2, 3 ... if VOLUME knob is turned clockwise, or it decreases in the manner of 0, 9, 8, 7 ... if VOLUME knob is turned counterclockwise.
8. When DISC SKIP/EX-CHANGE button is pressed after all LEDs and segments in LCD display light up, alternate segments in LCD display would light up. If you press DISC SKIP/EX-CHANGE button again, another half of alternate segments in LCD display would light up. When DISC SKIP/EX-CHANGE button is pressed again, all segments lights off. Press DISC SKIP/EX-CHANGE button again would cause all segments lights up.
9. To release from this mode, disconnect the AC plug.

[REPEAT 5 LIMIT OFF MODE]

- Number of repeats for DVD playback is 5 times when the repeat mode is “REPEAT”. This mode enables DVD to repeat playback for limitless times.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the FUNCTION button to select DVD function.
3. Press three buttons of DVD ►, DSGX, and DISPLAY simultaneously.
4. It enters the DVD repeat 5 limit cancel mode and displays “NO LIMIT”.
5. To release this mode, press three buttons of DVD ►, DSGX, and DISPLAY simultaneously.

[DVD SHIP MODE]

- This mode can run the DVD sled motor optionally. Use this mode, for instance, when cleaning the optical pick-up.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the FUNCTION button to select DVD function.
3. Press two buttons of DVD ► and I/⏻ simultaneously.
4. Set to the DVD ship mode. (chucking on)
5. After blink “STANDBY”, “LOCK” is displayed, disconnect the AC plug.

[COLD RESET]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Press ■ button, TUNER/BAND button, and I/⏻ STANDBY button simultaneously.
3. The message “RESET” appears on the LCD display. Then, the LCD display becomes blank for a while, and the system is reset.

[TUNER STEP CHANGE]

- The step interval of AM channels can be toggled between 9 kHz and 10 kHz. This mode is not available for Saudi Arabia and Russia models.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Press TUNER/BAND button repeatedly to select the “AM”.
3. Press I/⏻ button to turn off the system.
4. After pressing the DISPLAY button, press PRESET + button and I/⏻ STANDBY button simultaneously. The system will turn on automatically. The message “AM 9K STEP” or “AM 10K STEP” appears on the LCD display and thus the channel step is changed.

[DVD POWER MANAGE]

- This mode is for switch the DVD power supply on/off. Even if this state pulls out AC plug, it is held.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the FUNCTION button to select DVD function.
3. Press the I/⏻ button again to turn the power off (standby).
4. After pressing the DISPLAY button, press two buttons of DVD ► and I/⏻ simultaneously.
5. It turns power on and display “DVD POWER”, then display “ON” or “OFF”.

[DVD SHIP MODE]

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Select DVD function.
3. Press DVD ► button and I/⏻ button simultaneously during “DVD NO DISC” condition. The system will turn off automatically.
4. After the “STANDBY” blinking display finishes, a message “MECHA LOCK” appears on the LCD display and the DVD ship mode is set.

[DVD SHIP AND COLD RESET]

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the FUNCTION button to select DVD function.
3. Press three buttons of FUNCTION, DVD ► and I/⏻ simultaneously.
4. After blink "STANDBY", "RESET" is displayed, disconnect the AC plug.

[DVD SLOT LOCK]

- This mode is for the antitheft of DVD disc in shop. (not for transport)

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the FUNCTION button to select DVD function.
3. Insert a disc.
4. While pressing the ■ button, press the ⏏ button for more 5 seconds.
5. The message "LOCKED" is displayed and the disc slot is locked. (Even if exiting from this mode, the disc slot is still locked)
6. If press the ⏏ button to eject the disc, the message "LOCKED" is displayed and can not eject the disc.
7. To release this lock, while pressing the ■ button, press the ⏏ button for 5 seconds again.
8. The message "UNLOCKED" is displayed and the disc slot is unlocked.

[DVD COLOR SYSTEM] (EXCEPT E13 MODEL)

- This mode let you change the color system of the video output from PAL to NTSC or vice-versa. This mode is not available for Latin American and Russian models.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Select DVD function.
3. Press I/⏻ button again to turn off the system.
4. After pressing the DISPLAY button, press ❚❚ button and I/⏻ button simultaneously. The system will turn on automatically. The message "COLOR PAL" or "COLOR NTSC" appears on the LCD display.

[DVD SERVICE MODE]

- This mode let you make diagnosis and adjustment easily by using the remote commander and the TV. The instructions, diagnostic results, etc. are given on the on-screen display.

- TEST DISC LIST

  Be sure to use the DVD disc that matches the signal standards of your region.

  • CD
  YEDS-18 (Part No.: 3-702-101-01)
  PATD-012 (Part No.: 4-225-203-01)
  • DVD SL (Single Layer)
  NTSC : HLX-503 (Part No.: J-6090-069-A)
  HLX-504 (Part No.: J-6090-088-A)
  PAL : HLX-506 (Part No.: J-6090-077-A)
  • DVD DL (Dual Layer)
  NTSC : HLX-501 (Part No.: J-6090-071-A)
  HLX-505 (Part No.: J-6090-089-A)
  PAL : HLX-507 (Part No.: J-6090-078-A)

- Procedure to enter to DVD Service Mode:

1. Press I/⏻ button to turn on the system.
2. Select DVD function.
3. Press DVD ► button and ⏏ button simultaneously and then turn the VOLUME knob clockwise.
4. The message "SERVICE IN" appears on the LCD display and the Top Menu of Remocon Diagnosis Menu appears on the on-screen display on the TV. The model name, main unit's micom version information (IF-con) and DVD firmware version information (Syscon) are displayed at the bottom of the on-screen display.

```
        Remocon Diagnosis Menu

0. External Chip Check
1. Servo Parameter Check
2. Drive Manual Operation
3. Emergency History
4. Version Information


Model Name   : EROD_ME
IF-con       : Ver. 01.00 (0000)
Syscon       : Ver. 1.200
```

5. To execute each function, press its number by using numeric button on the remote commander.
6. To release from this mode, press I/⏻ button to turn off the system.

- Execute IOP Measurement

  In order to execute IOP measurement, the following standard procedures must be followed.

1. From the Top Menu of Remocon Diagnosis Menu, select "2. Drive Manual Operation" by pressing the 2 button on the remote commander. The following screen appears on the on-screen display.

```
        Drive Manual Operation

1. Servo Control
2. Track/Layer Jump
3. Manual Adjustment
4. Mecha test Mode
5. MIRR time Adjust
0. Return to Top Menu
```

2. Select "3. Manual Adjustment" by pressing the 3 button on the remote commander. The following screen appears on the on-screen display.

```
          Manual Adjust

1. Track Balance Adjust:
2. Track Gain Adjust:
3. Focus Balance Adjust:
4. Focus Gain Adjust:
5. Eg Boost Adjust:
6. Iop:
7. TRV. Level:
8. S curve(FE) Level:
9. RFL(PI) Level:
0. MIRR Time:

↑↓ Change Value
RETURN Return to previous menu
```

3. Select “6. Iop:” by pressing [6] button on the remote commander.
4. Wait until a hexadecimal number appears in the on-screen display as below:

```
Manual Adjust

1. Track Balance Adjust:
2. Track Gain Adjust:
3. Focus Balance Adjust:
4. Focus Gain Adjust:
5. Eg Boost Adjust:
6. Iop. ED:
7. TRV. Level:
8. S curve(FE) Level:
9. RFL(PI) Level:
0. MIRR Time:

[↑][↓] Change Value
[RETURN] Return to previous menu
```

5. Convert data from hexadecimal to decimal by using conversion table.
6. Please find the label on the rear of the BU (Base Unit). The default IOP value is written in the label.
7. Subtract between these two values.
8. If the remainder is smaller than 93 (decimal), then it is OK. However if the value is higher than 93, then the BU is defective and need to be change.
9. Press [RETURN] button on the remote commander to return to previous menu.
10. Press [0] button on the remote commander to return to the Top Menu of Remocon Diagnosis Menu.
11. Press [I/⏻] button to turn off the system.

- Check Emergency History

To check the emergency history, please follow the following procedure.

1. From the Top Menu of Remocon Diagnosis Menu, select “3. Emergency History” by pressing the [3] button on the remote commander. The following screen appears on the on-screen display.

```
Emg. History Check

Laser Hours        CD     999h      59min
                   DVD    999h      59min

1.  01  05  04  04      00  92  46  00
    00  00  00  00      00  00  23  45
2.  02  02  01  01      00  A9  4B  00
    00  00  00  00      00  00  23  45

[Next] Next Page  [Prev] Prev Page
[0] Return to Top Menu
```

2. You can check the total time when the laser is turned on during playback of DVD and CD from the above menu. The maximum time, which can be displayed are 999h 59min.
3. You can check the error code of latest 10 emergency history from the above menu. To view the previous or next page of emergency history, press [⏮] or [⏭] on the remote commander. The error code consists of

- Error Code

```
Example of Error code

1.  01  05  04  04      00  92  46  00
    00  00  00  00      00  00  23  45
```

The meaning of error code is as below:
01: Communication error (No reply from syscon)
02: Syscon hung up
03: Power OFF request when syscon hung up
19: Thermal shutdown
24: MoveSledHome error
25: Mechanical move error (5 Changer)
26: Mechanical move stack error
30: DC motor adjustment error
31: DPD offset adjustment error
32: TE balance adjustment error
33: TE sensor adjustment error
34: TE loop gain adjustment error
35: FE loop gain adjustment error
36: Bad jitter after adjustment
40: Focus NG
42: Focus layer jump NG
52: Open kick spindle error
51: Spindle stop error
60: Focus on error
61: Seek fail error
62: Read Q data/ID error
70: Lead in data read fail
71: TOC read time out (CD)
80: Can’t buffering
81: Unknown media type

- Parameter of error code

This is the detail of error code.

```
Example of Error code

1.  01  05  04  04      00  92  46  00
    00  00  00  00      00  00  23  45
```

- Time of error code

This is the laser time when an error occurred.

```
Example of Error code

1.  01  05  04  04      00  92  46  00
    00  00  00  00      00  00  23  45
```

To clear the Laser Hour

Press [DISPLAY] button and then press [CLEAR] button. The data for both CD and DVD data are reset.

```
                Emg. History Check

Laser Hours        CD     0h          0min
                   DVD    0h          0min

1.  01  05  04  04        00  92  46  00
    00  00  00  00        00  00  23  45
2.  02  02  01  01        00  A9  4B  00
    00  00  00  00        00  00  23  45

[Next] Next Page  [Prev] Prev Page
[0] Return to Top Menu
```

To clear the Emergency History

Press [DVD TOP MENU] button and then press [CLEAR] button. The error code for all emergency history would be reset.

```
                Emg. History Check

Laser Hours        CD     999h        59min
                   DVD    999h        59min

1.  00  00  00  00        00  00  00  00
    00  00  00  00        00  00  00  00
2.  00  00  00  00        00  00  00  00
    00  00  00  00        00  00  00  00

[Next] Next Page  [Prev] Prev Page
[0] Return to Top Menu
```

To clear the Initialize Setup Data

Press [DVD/TUNER MENU] button and then press [CLEAR] button on the remote commander.

```
                Emg. History Check

Laser Hours        CD     999h        59min
                   DVD    999h        59min

Initialize setup data...




[Next] Next Page  [Prev] Prev Page
[0] Return to Top Menu
```

To return to the Top Menu of Remocon Diagnosis Menu

Press [0] button on the remote commander.

- Check Version Information

  To check the version information, please follow the following procedure.

1. From the Top Menu of Remocon Diagnosis Menu, select “4. Version Information” by pressing the [4] button on the remote commander. The following screen appears on the on-screen display.

```
            Version information

Firm (Main) :  Ver. xxxxx
Firm (Sub) :  xxxxx
RISC :  xxxxx
8032 :  xxxxx
Audio DSP :  xxxxx
Servo DSP :  xxxxx


[0] Return to Top Menu
```

   To return to the Top Menu of Remocon Diagnosis Menu, press [0] on the remote commander.

SECTION 5
MECHANICAL ADJUSTMENTS

- **Precaution**

1. Clean the following parts with a denatured-alcohol-moistened swab :

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, appiy suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

- **Torque Measurement**

Mode	Torque meter	Meter reading
FWD	CQ-102AS	2.0 – 8.0 mN • m (20 to 80 g • cm) (0.28 – 1.12 oz • inch)
FWD back tension	CQ-102C	0.15 – 0.6 mN • m (1.5 to 6 g • cm) (0.021 – 0.083 oz • inch)
FF	CQ-201AS	5 – 17.7 mN • m (50 to 177 g • cm) (0.7 – 2.48 oz • inch)
REW	CQ-201B	5 – 17.7 mN • m (50 to 177 g • cm) (0.7 – 2.48 oz • inch)

- **Tape Tension Measurement**

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 80 g (more than 2.82 oz)

SECTION 6
ELECTRICAL ADJUSTMENTS

DECK SECTION | 0 dB=0.775 V

1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.

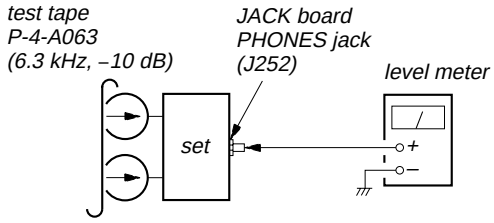
- **Test Tape**

Tape	Signal	Used for
P-4-A063	6.3 kHz, –10 dB	Azimuth Adjustment

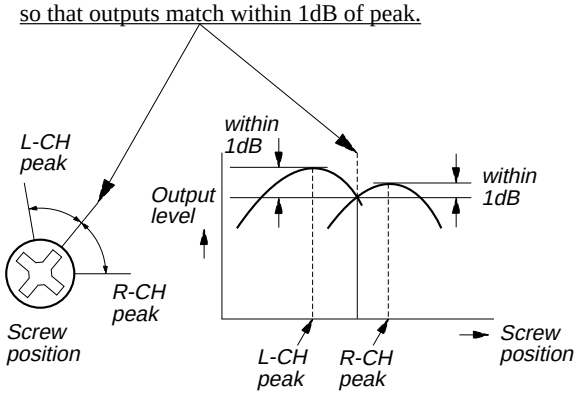
RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

Procedure:

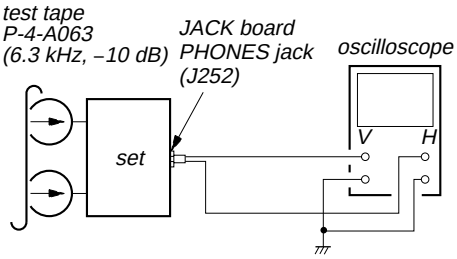
1. Mode: Playback

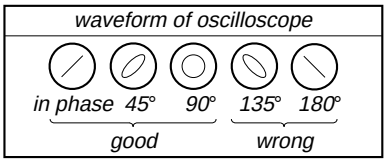


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.



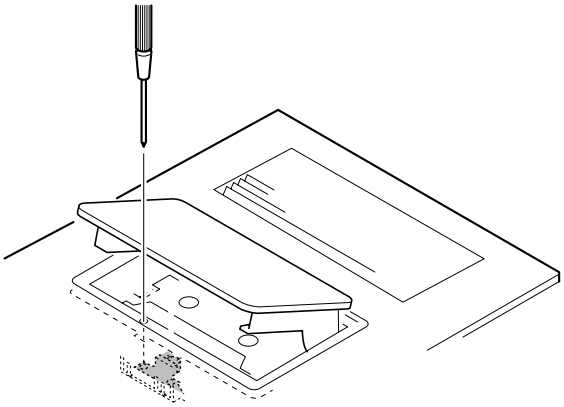
3. Mode: Playback





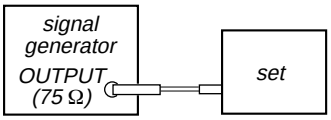
4. After the adjustments, apply suitable locking compound to the pats adjusted.

Adjustment Location: Record/Playback/Erase Head



TUNER SECTION

[FM TUNE LEVEL CHECK]



Procedure:

1. Turn on the set.
2. Input the following signal from signal generator to FM antenna input directly.

Carrier frequency: A = 87.5 MHz, B = 98 MHz, C = 108 MHz

Deviation : 75 kHz
Modulation : 1 kHz
ANT input : 35 dBu (EMF)

Note: Use 75 ohm coaxial cable to connect signal generator and the set.
You cannot use video cable for checking.
Use signal generator whose output impedance is 75 ohm.

3. Set to FM tuner function and tune A, B and C signals.
4. Confirm "TUNED" is lit on the display for A, B and C signals.

When the selected station signal is received in good condition, "TUNED" is displayed.

DVD SECTION

When the optical pick-up assy is replaced, perform the "Execute IOP Measurement".

Execute IOP Measurement (See page 25)

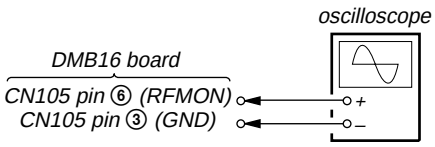
[TEST DISC LIST]

Be sure to use the DVD disc that matches the signal standards of your region.

- CD
  - YEDS-18 (Part No.: 3-702-101-01)
  - PATD-012 (Part No.: 4-225-203-01)
- DVD SL (Single Layer)
  - NTSC : HLX-503 (Part No.: J-6090-069-A)
  - HLX-504 (Part No.: J-6090-088-A)
  - PAL : HLX-506 (Part No.: J-6090-077-A)
- DVD DL (Dual Layer)
  - NTSC : HLX-501 (Part No.: J-6090-071-A)
  - HLX-505 (Part No.: J-6090-089-A)
  - PAL : HLX-507 (Part No.: J-6090-078-A)

[RFMON Level Check]

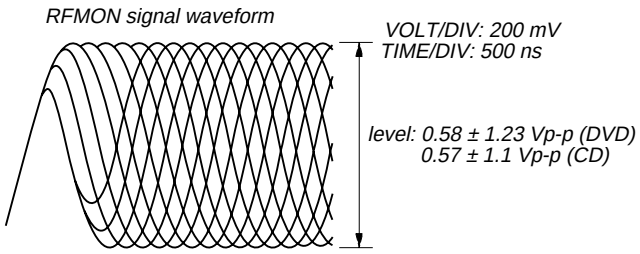
Connection:



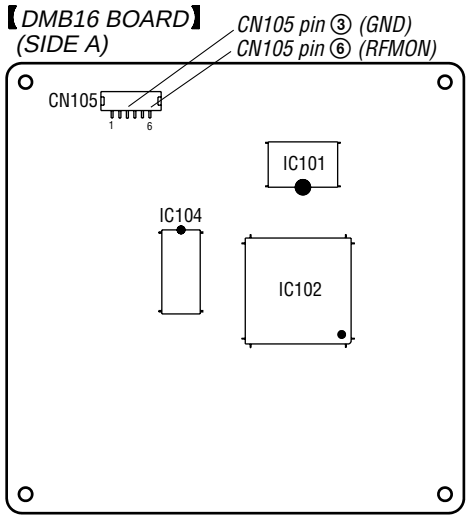
Procedure:

1. Connect an oscilloscope to CN105 pin ⑥ (RFMON) and CN105 pin ③ (GND) on the DMB16 board.
2. Turn the power on.
3. Set the test disc (refer to the TEST DISC LIST) on the tray and press DVD ► button to playback.
4. Confirm that oscilloscope waveform is clear and check RFMON signal level is correct or not.

Note: A clear RFMON signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.



Checking Location: DMB16 board (Side A)

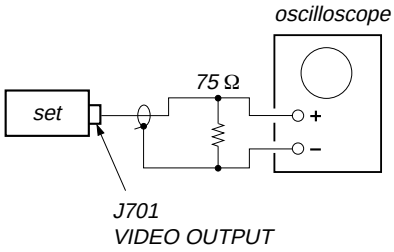


VIDEO SECTION

Video Level Check (MAIN BOARD)

Purpose

This adjustment is made to satisfy the NTSC standard, and if not adjusted correctly, the brightness will be too large or small.

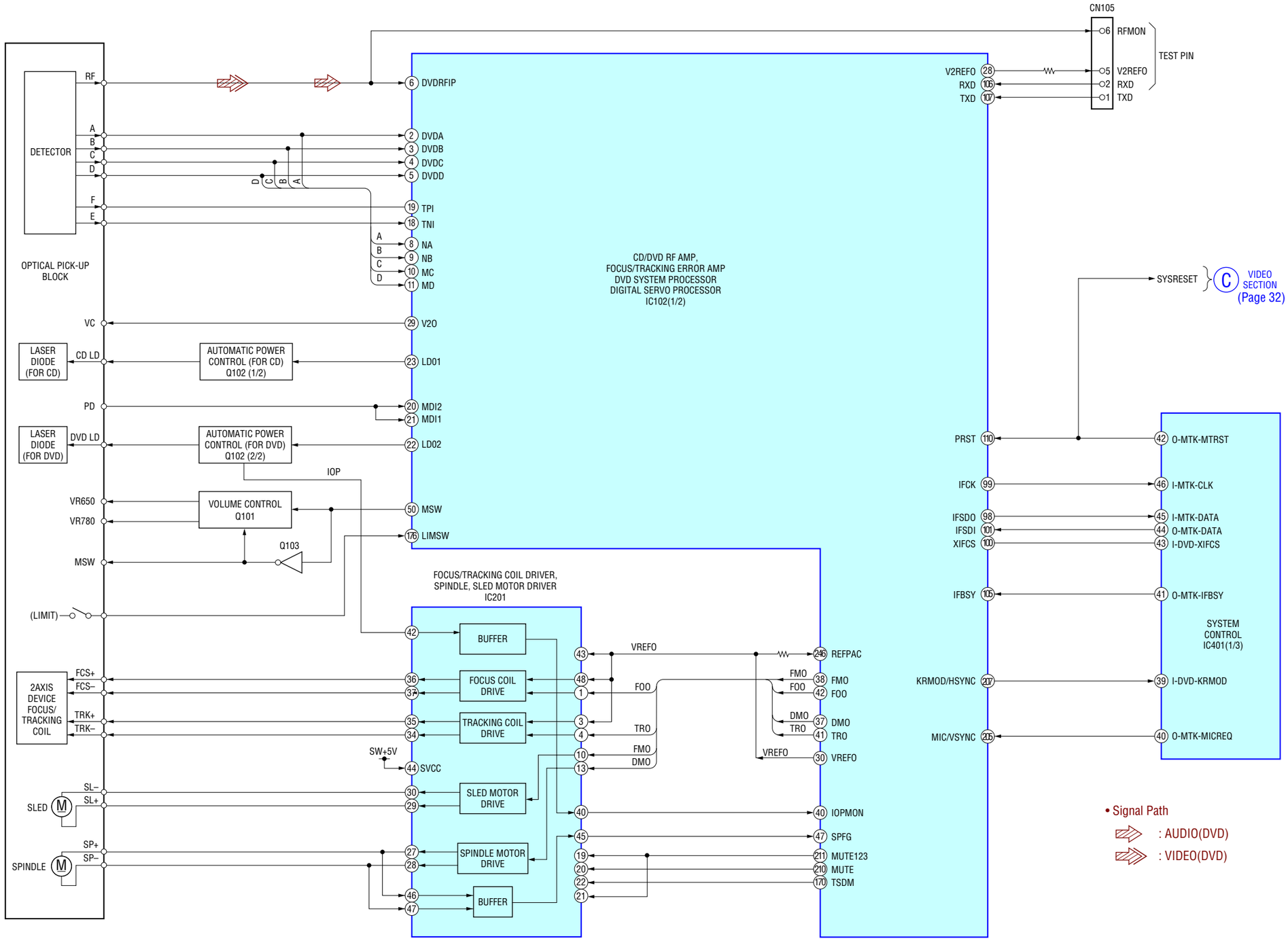


Procedure:

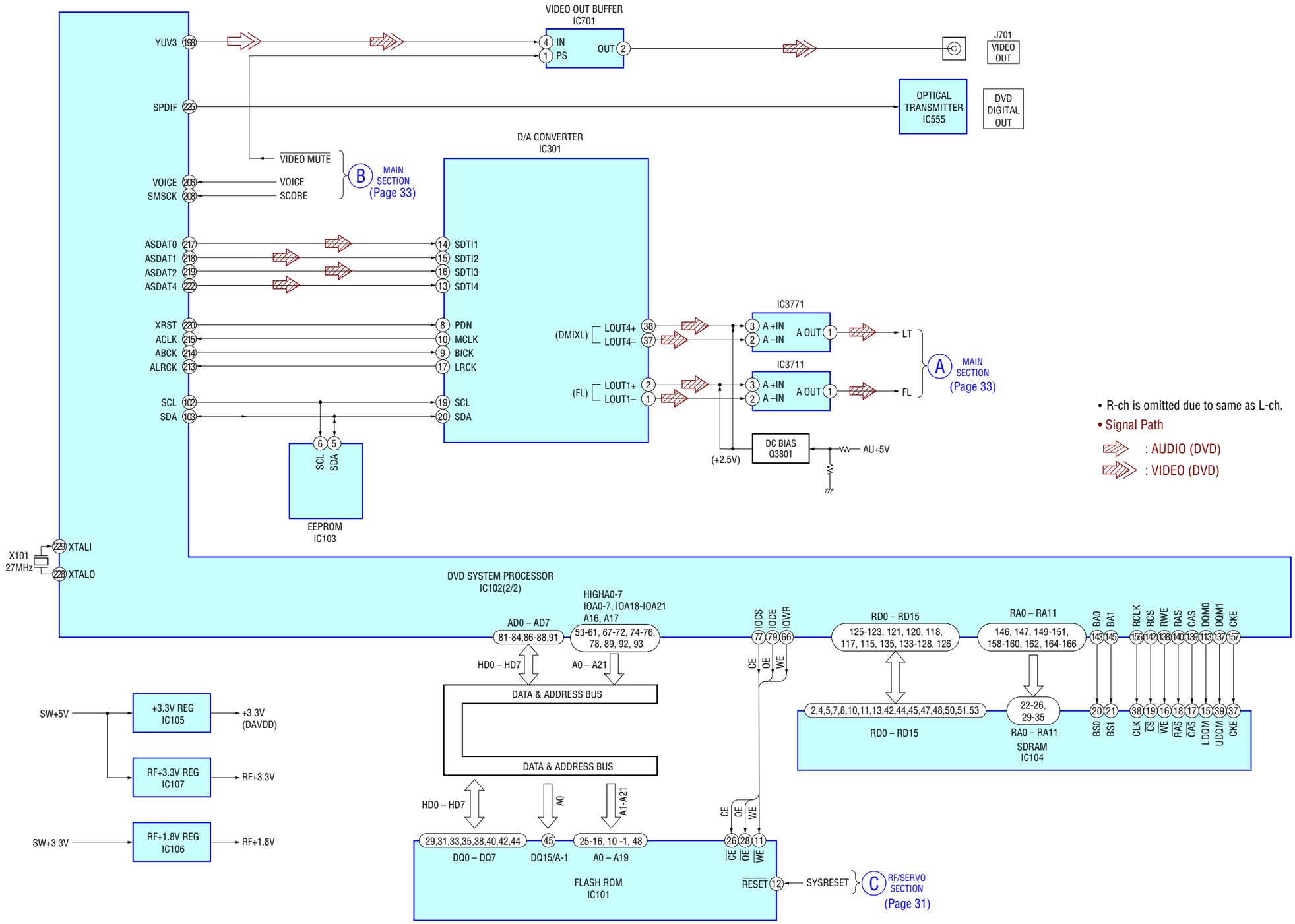
1. Connect oscilloscope to VIDEO output.
2. Load a DVD reference disc playback.
3. Check the video signal level is 1.00 ± 0.07Vp-p.

SECTION 7
DIAGRAMS

7-1. BLOCK DIAGRAM – RF/SERVO Section –

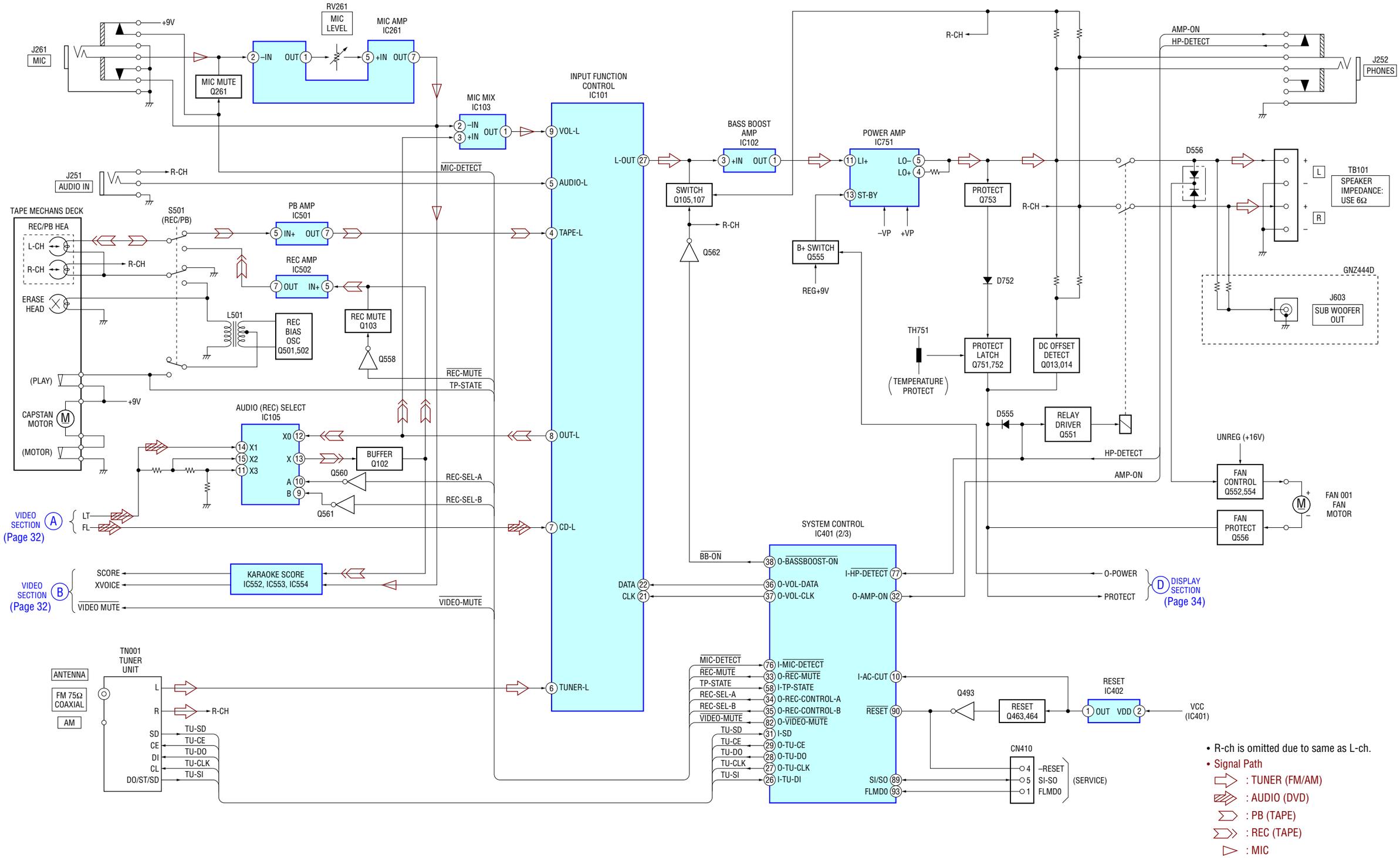


7-2. BLOCK DIAGRAM – VIDEO Section –



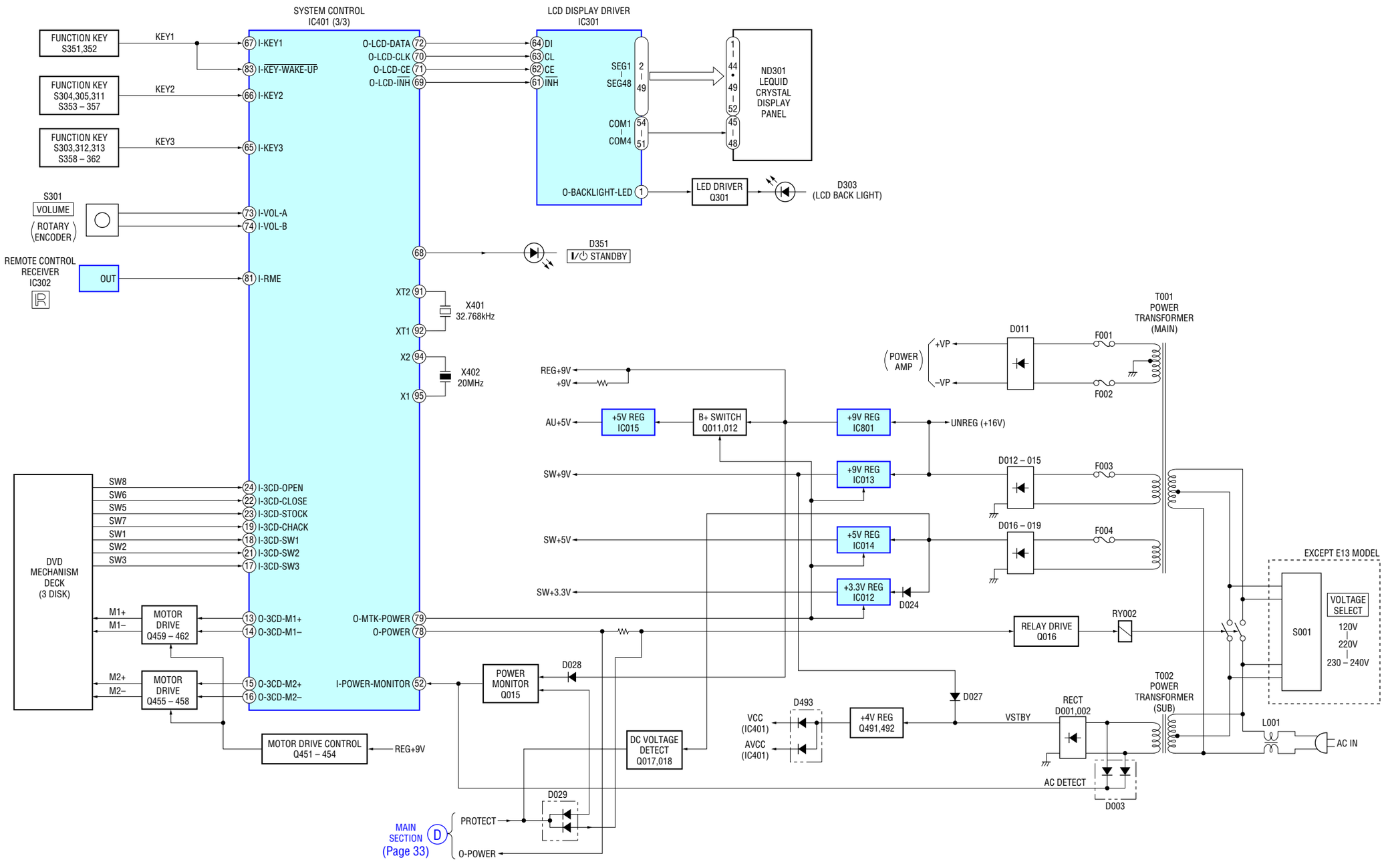
- R-ch is omitted due to same as L-ch.
- Signal Path
  - : AUDIO (DVD)
  - : VIDEO (DVD)

7-3. BLOCK DIAGRAM – MAIN Section –



- R-ch is omitted due to same as L-ch.
- Signal Path
  - : TUNER (FM/AM)
  - : AUDIO (DVD)
  - : PB (TAPE)
  - : REC (TAPE)
  - : MIC

7-4. BLOCK DIAGRAM – DISPLAY Section –



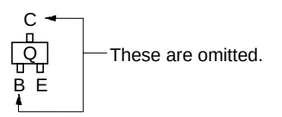
• Note for Printed Wiring Boards and Schematic Diagrams

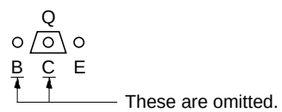
Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor





UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 ˚C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 ˚C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

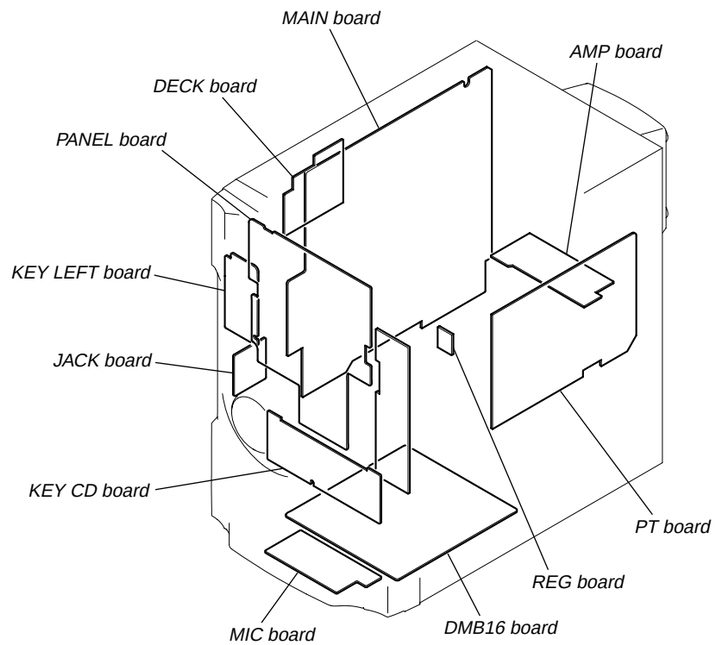
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▭ : adjustment for repair.
- ▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
  – DECK Section –
  no mark : TAPE PLAY
  < > : TAPE REC
  – Other Section –
  no mark : TUNER (FM/AM)
  << >> : DVD PLAY
- Circled numbers refer to waveforms.
- Signal path.
  : TUNER (FM/AM)
  : AUDIO (DVD)
  : VIDEO (DVD)
  : MIC
  : PB (TAPE)
  : REC (TAPE)
- Abbreviation
  E3 : 240 V AC area in E model
  E12 : 220-240 V AC area in E model
  E13 : Russian model
  E15 : Iran model
  EA : Saudi Arabia model
  PH : Philippine model
  SP : Singapore model
  TH : Thai model

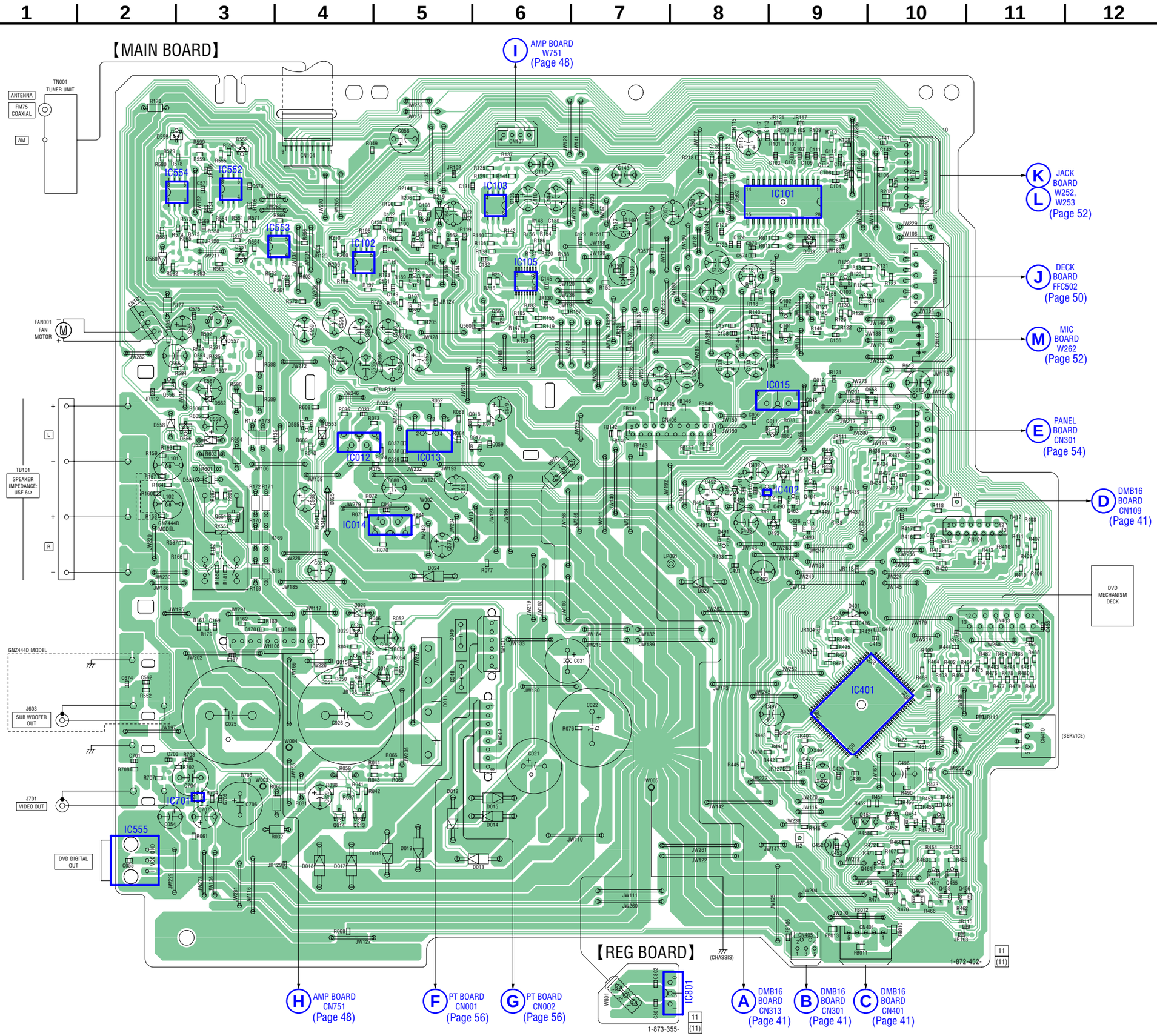
• Circuit Boards Location



7-5. PRINTED WIRING BOARDS – MAIN Section –

• See page 35 for Circuit Boards Location.

: Uses unleaded solder.



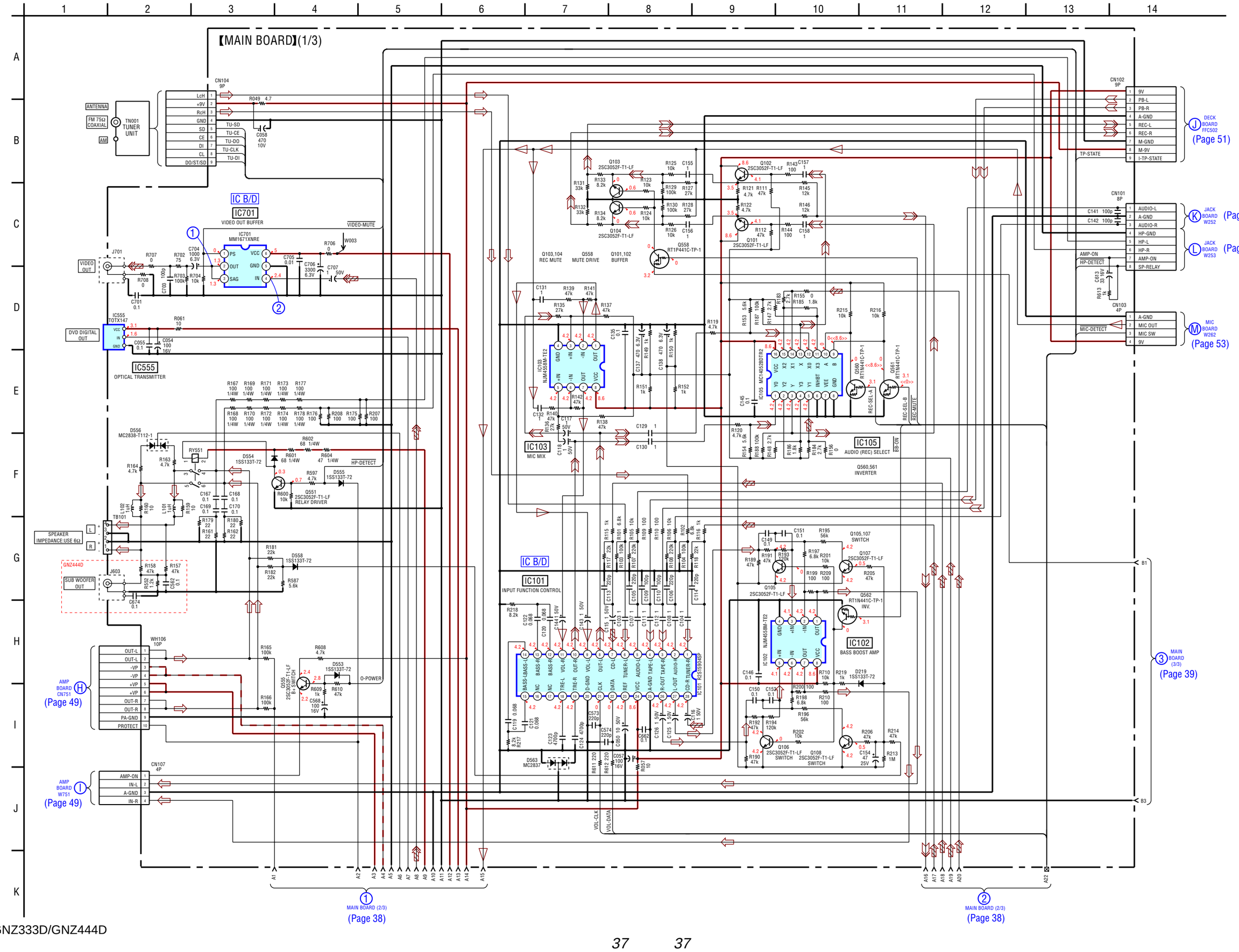
- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D011	G-5	IC701	H-3
D012	H-5	IC801	J-8
D013	I-6		
D014	I-6	Q011	E-9
D015	H-6	Q012	D-9
D016	I-5	Q013	I-4
D017	I-4	Q014	I-4
D018	I-4	Q015	G-4
D019	I-5	Q016	G-5
D024	F-5	Q017	E-6
D027	F-8	Q018	E-6
D028	F-4	Q101	D-9
D029	G-4	Q102	C-9
D219	B-5	Q103	C-9
D401	F-9	Q104	C-10
D490	E-8	Q105	C-5
D491	E-8	Q106	C-5
D492	E-9	Q107	C-5
D493	F-9	Q108	B-5
D551	C-3	Q451	I-9
D552	B-3	Q452	I-10
D553	E-4	Q453	I-10
D554	E-3	Q454	I-10
D555	E-3	Q455	I-10
D556	E-3	Q456	I-10
D557	D-3	Q457	I-10
D558	E-2	Q458	I-10
D559	B-2	Q459	I-10
D560	C-2	Q460	I-10
D562	D-3	Q461	I-10
D563	C-9	Q462	I-10
		Q463	E-9
IC012	E-4	Q464	E-9
IC013	E-5	Q491	F-8
IC014	F-4	Q492	E-8
IC015	D-9	Q493	F-9
IC101	B-9	Q551	E-3
IC102	C-4	Q552	C-3
IC103	B-6	Q554	D-3
IC105	C-6	Q555	E-4
IC401	G-9	Q556	D-2
IC402	E-9	Q558	D-10
IC552	B-3	Q560	D-6
IC553	C-4	Q561	C-6
IC554	B-3	Q562	C-5
IC555	I-2		

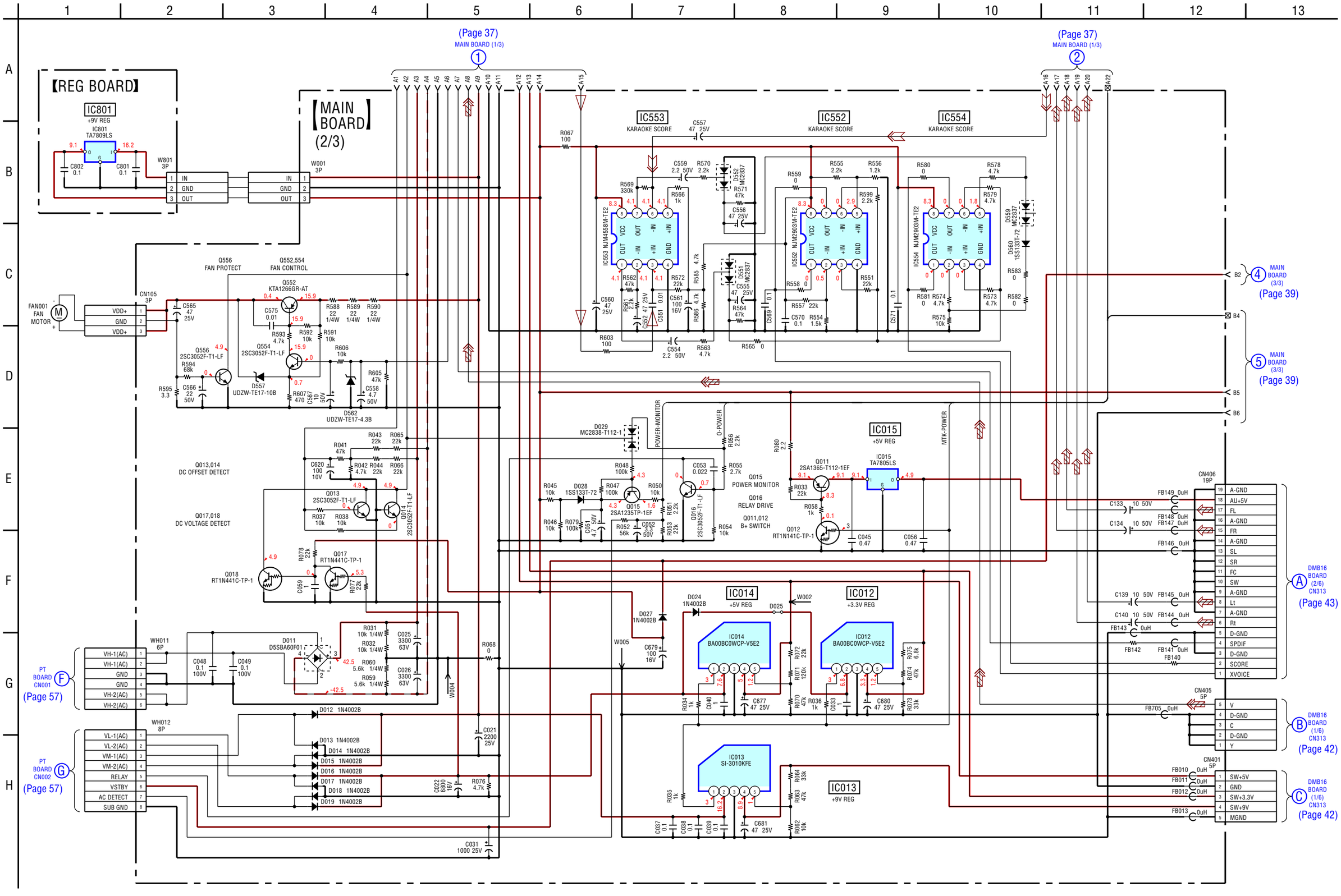
7-6. SCHEMATIC DIAGRAM – MAIN Section (1/3) –

• See page 58 for Waveforms.
• See page 61 for IC Block Diagrams.

【MAIN BOARD】(1/3)

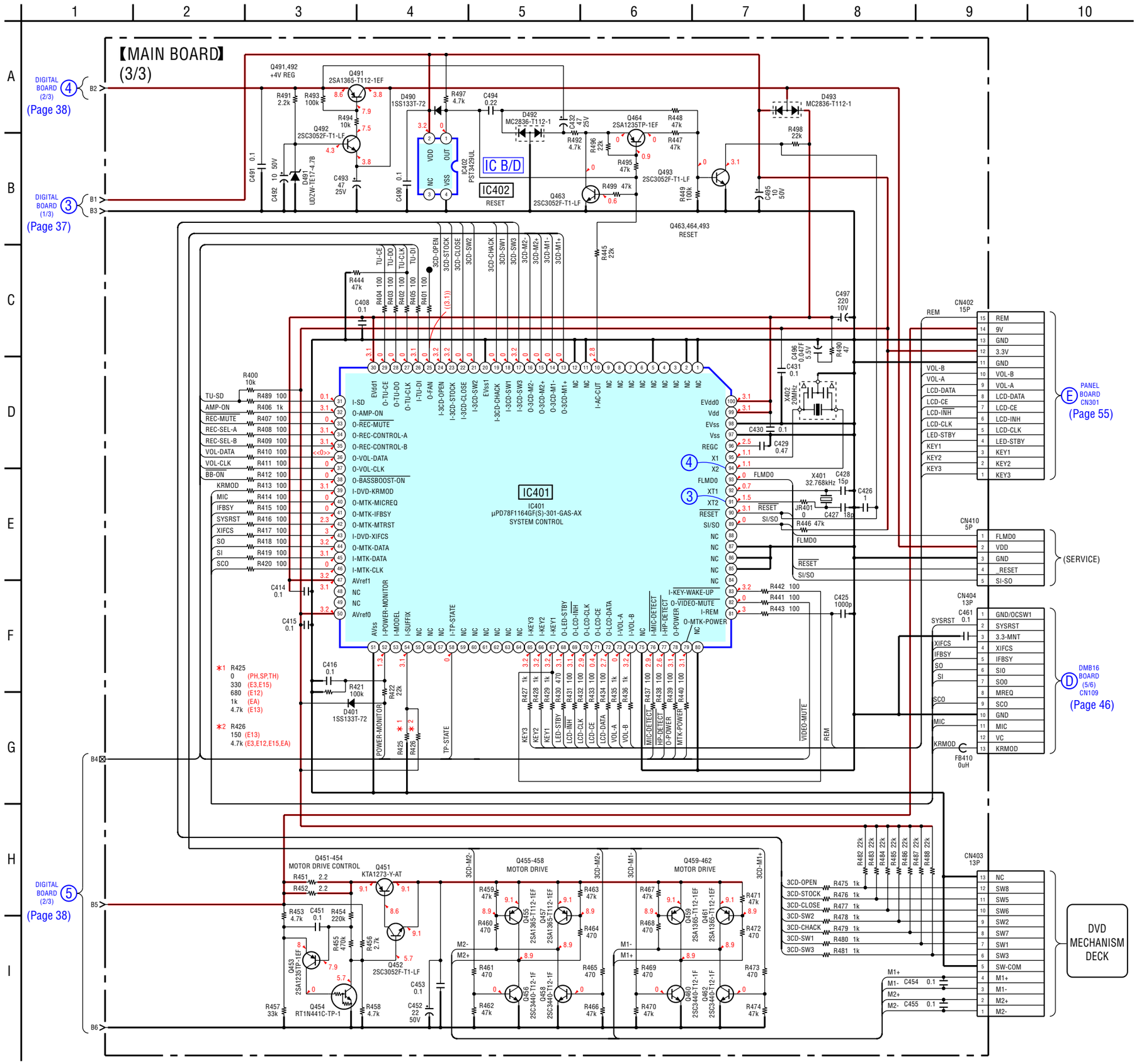


7-7. SCHEMATIC DIAGRAM – MAIN Section (2/3) –



7-8. SCHEMATIC DIAGRAM – MAIN Section (3/3) –

- See page 58 for Waveforms.
- See page 62 for IC Block Diagram.
- See page 63 for IC Pin Description of IC401.

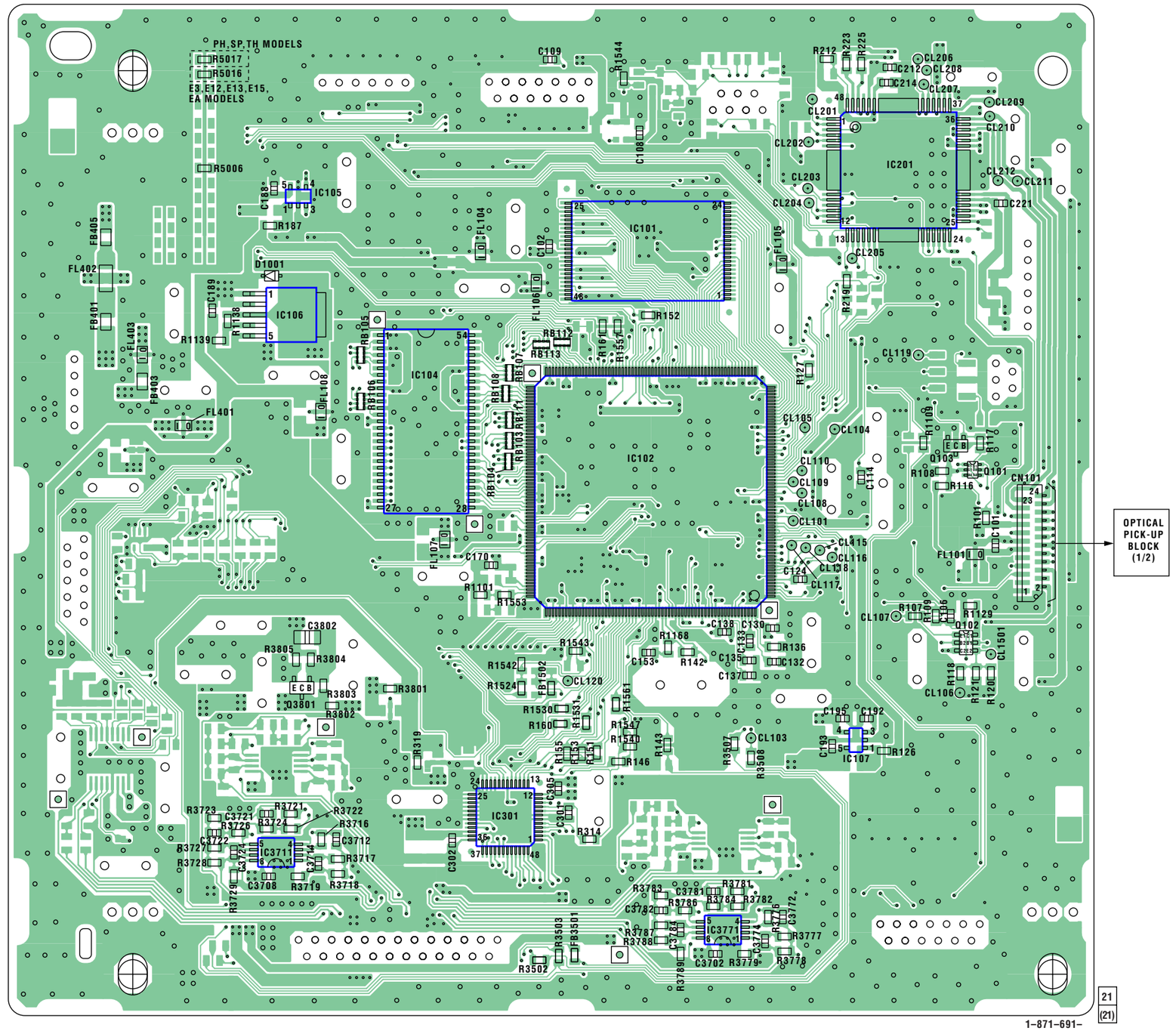


7-9. PRINTED WIRING BOARD – DMB16 Section (1/2) –

• See page 35 for Circuit Boards Location.

: Uses unleaded solder.

【DMB16 BOARD 】(SIDE A)


PH,SP,TH MODELS
R5017
R5016
E3,E12,E13,E15,
EA MODELS
R5006
IC105
IC106
IC101
IC104
IC102
IC201
IC301
IC3711
IC3771
IC107
D1001
FB405
FB401
FB403
FL402
FL403
FL401
FL108
FL107
FL106
FL104
FL105
FB1502
FB3501
C109
C108
C102
C188
C189
C170
C305
C310
C302
C3802
C3721
C3722
C3726
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C3772
C3774
C3776
C3777
C3778
C3702
C3779
C153
C135
C137
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C132
C136
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C192
C193
R1544
R212
R223
R225
R214
R219
R187
R1139
R152
R1553
R1543
R1542
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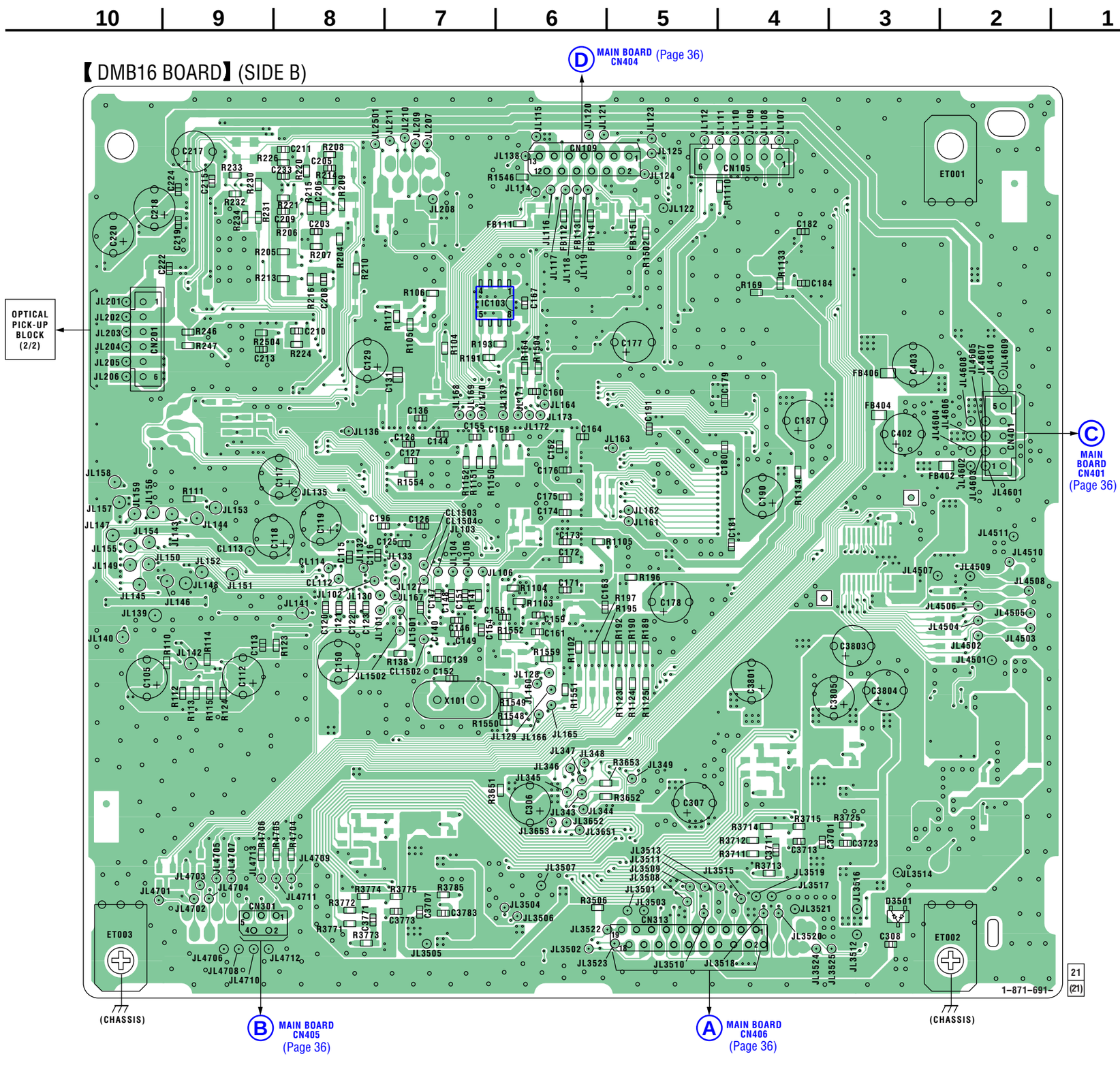
7-10. PRINTED WIRING BOARD – DMB16 Section (2/2) –

• See page 35 for Circuit Boards Location.

: Uses unleaded solder.

When IC103 on the DMB16 board are damaged, exchange the new DMB16 board for the DMB16 board which IC damaged.

【DMB16 BOARD】(SIDE B)

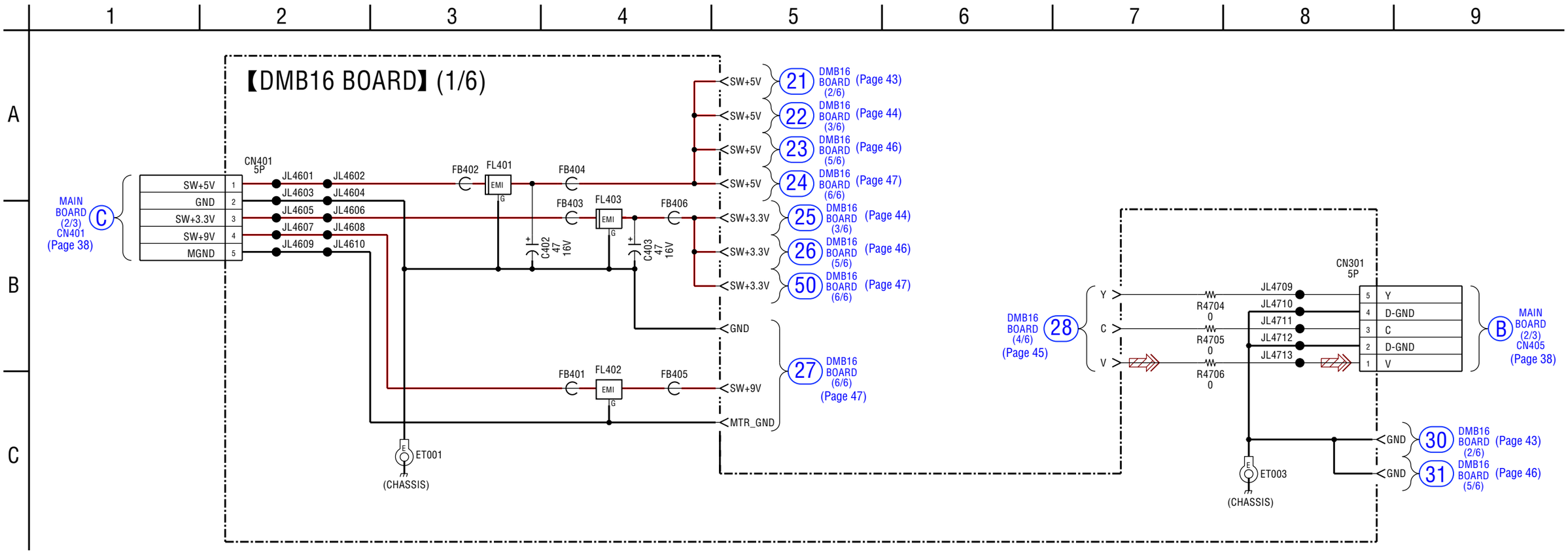


- **Semiconductor Location**

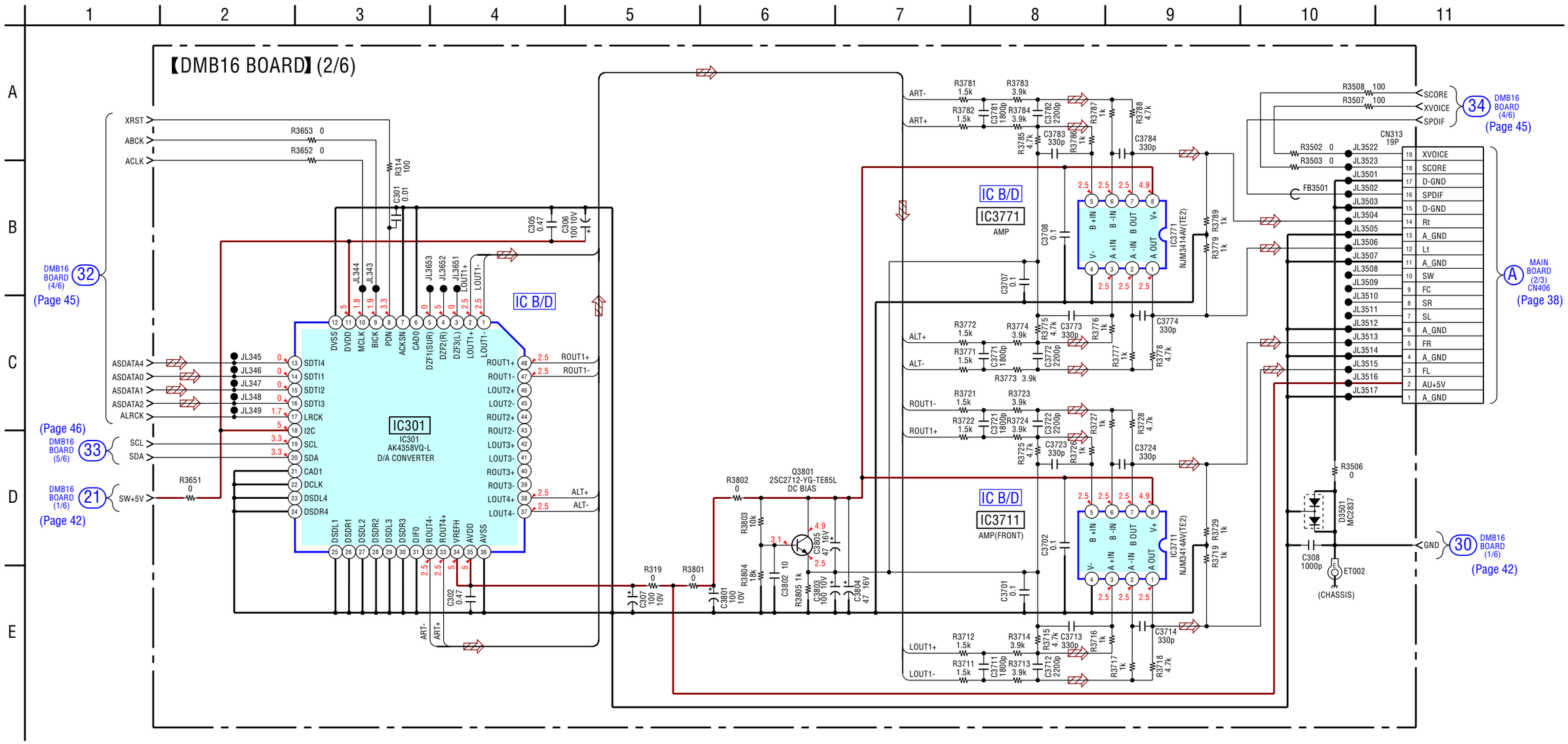
Ref. No.	Location
D1001	D-4
(D3501)	H-3
IC101	C-7
IC102	E-7
(IC103)	C-7
IC104	D-5
IC105	C-4
IC106	D-4
IC107	G-8
IC201	B-9
IC301	H-5
IC3711	G-4
IC3771	H-7
Q101	E-9
Q102	F-9
Q103	E-9
Q3801	G-4

( ): SIDE B

7-11. SCHEMATIC DIAGRAM – DMB16 Section (1/6) –

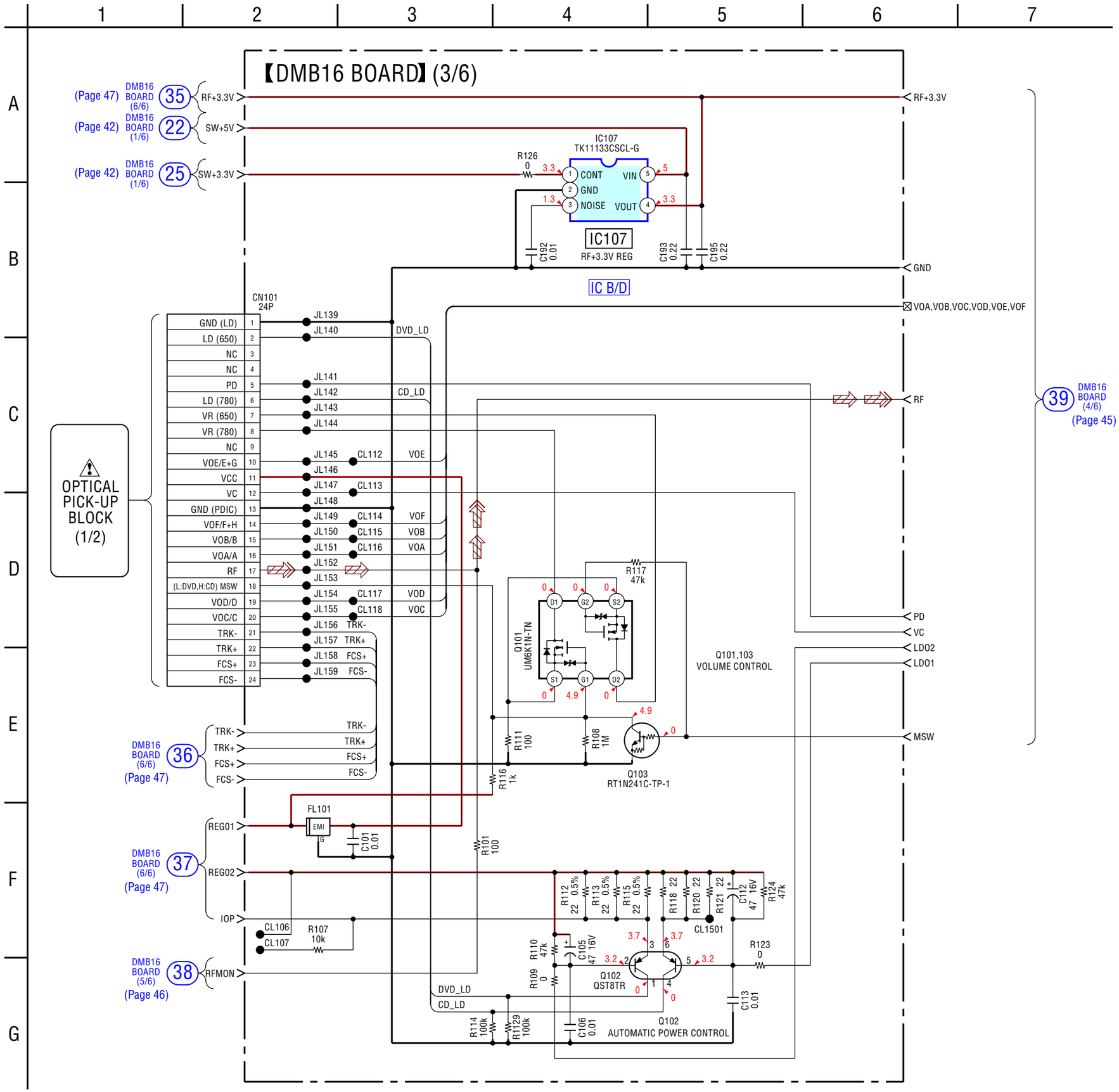


7-12. SCHEMATIC DIAGRAM – DMB16 Section (2/6) – • See page 58 for IC Block Diagrams.



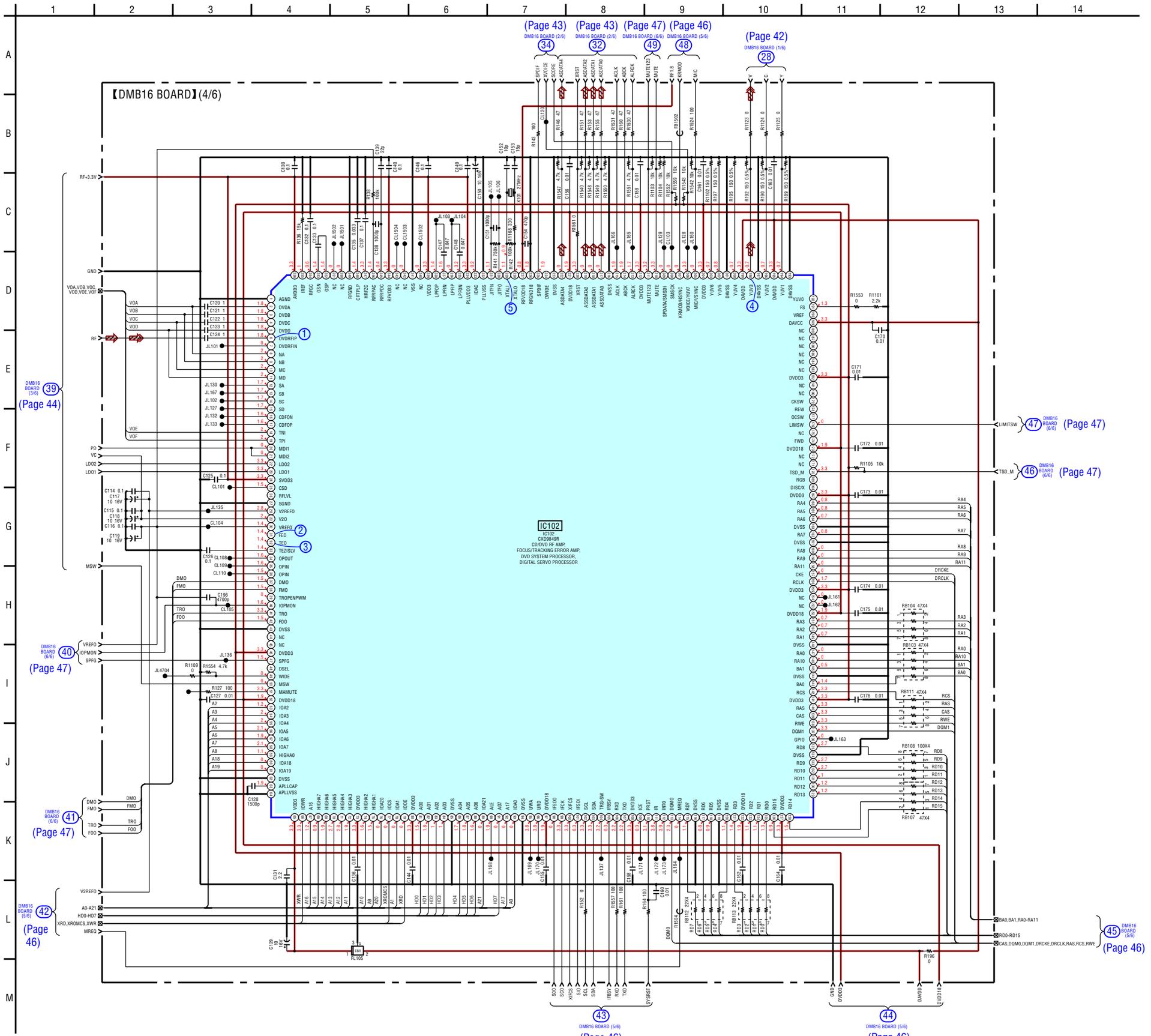
7-13. SCHEMATIC DIAGRAM – DMB16 Section (3/6) –

• See page 58 for IC Block Diagram.



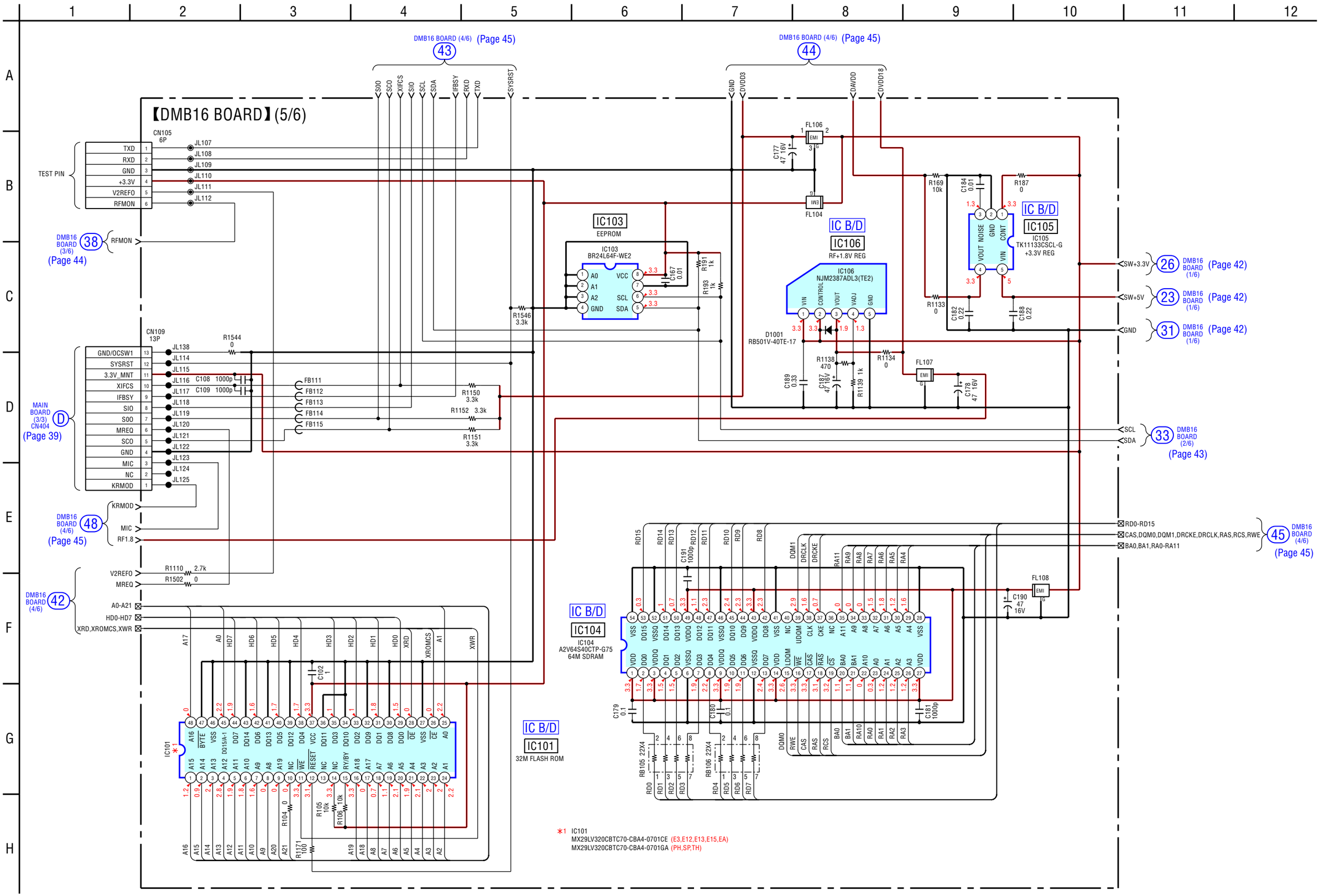
7-14. SCHEMATIC DIAGRAM – DMB16 Section (4/6) –

- See page 58 for Waveforms.
- See page 65 for IC Pin Description of IC102.

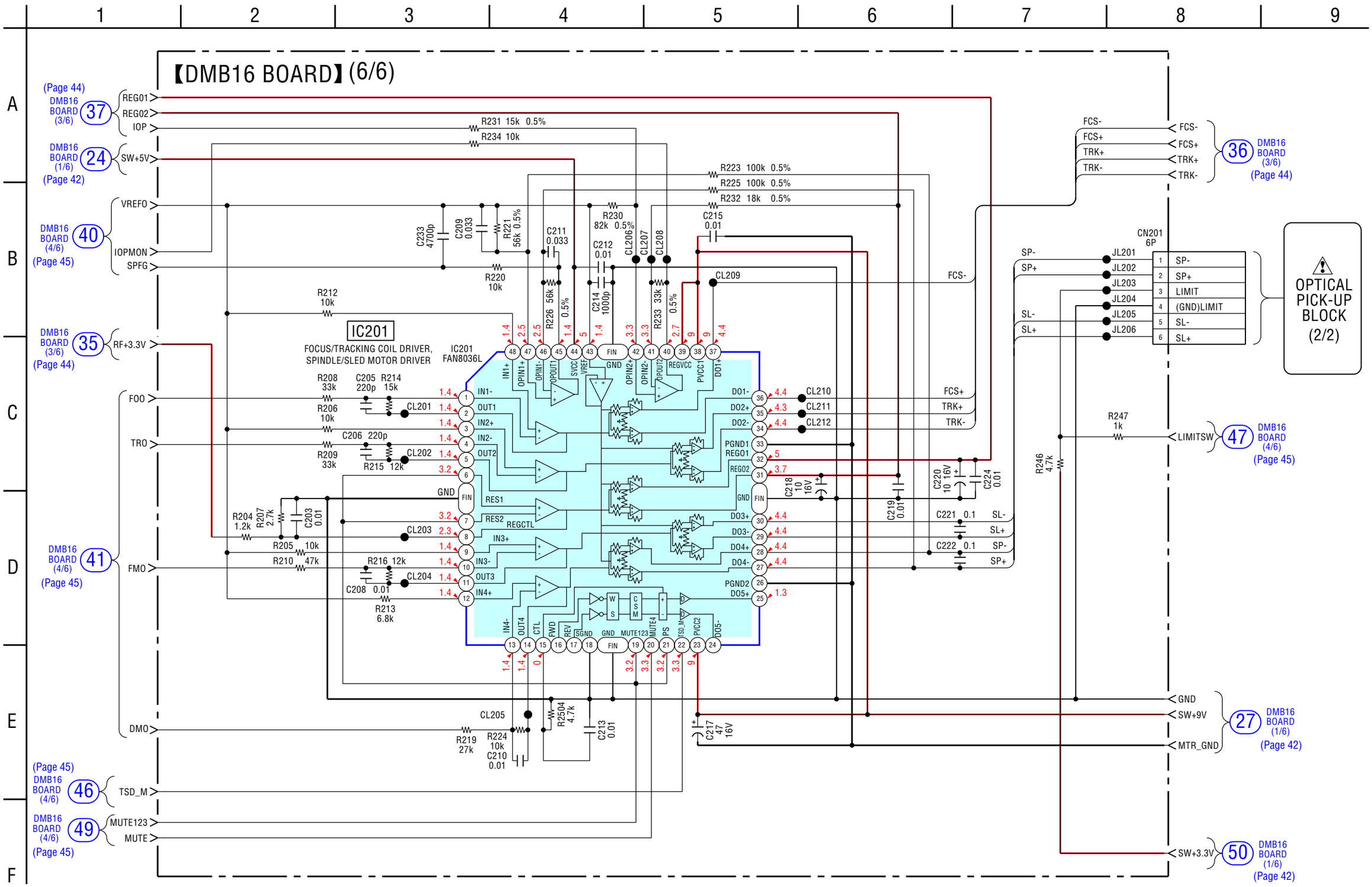

【DMB16 BOARD】(4/6)
IC102
IC102
CXD9869R
CD/DVD RF AMP,
FOCUS/TRACKING ERROR AMP,
DVD SYSTEM PROCESSOR,
DIGITAL SERVO PROCESSOR
(Page 43) DMB16 BOARD (2/6)
(Page 43) DMB16 BOARD (2/6)
(Page 47) DMB16 BOARD (6/6)
(Page 46) DMB16 BOARD (5/6)
(Page 42) DMB16 BOARD (1/6)
(Page 44) DMB16 BOARD (3/6)
(Page 47) DMB16 BOARD (6/6)
(Page 47) DMB16 BOARD (6/6)
(Page 46) DMB16 BOARD (6/6)
(Page 47) DMB16 BOARD (6/6)
(Page 47) DMB16 BOARD (6/6)
(Page 47) DMB16 BOARD (6/6)
(Page 46) DMB16 BOARD (5/6)
(Page 46) DMB16 BOARD (5/6)
(Page 46) DMB16 BOARD (5/6)
(Page 46) DMB16 BOARD (5/6)

7-15. SCHEMATIC DIAGRAM – DMB16 Section (5/6) – • See page 58 for IC Block Diagrams.

When IC103 on the DMB16 board are damaged, exchange the new DMB16 board for the DMB16 board which IC damaged.



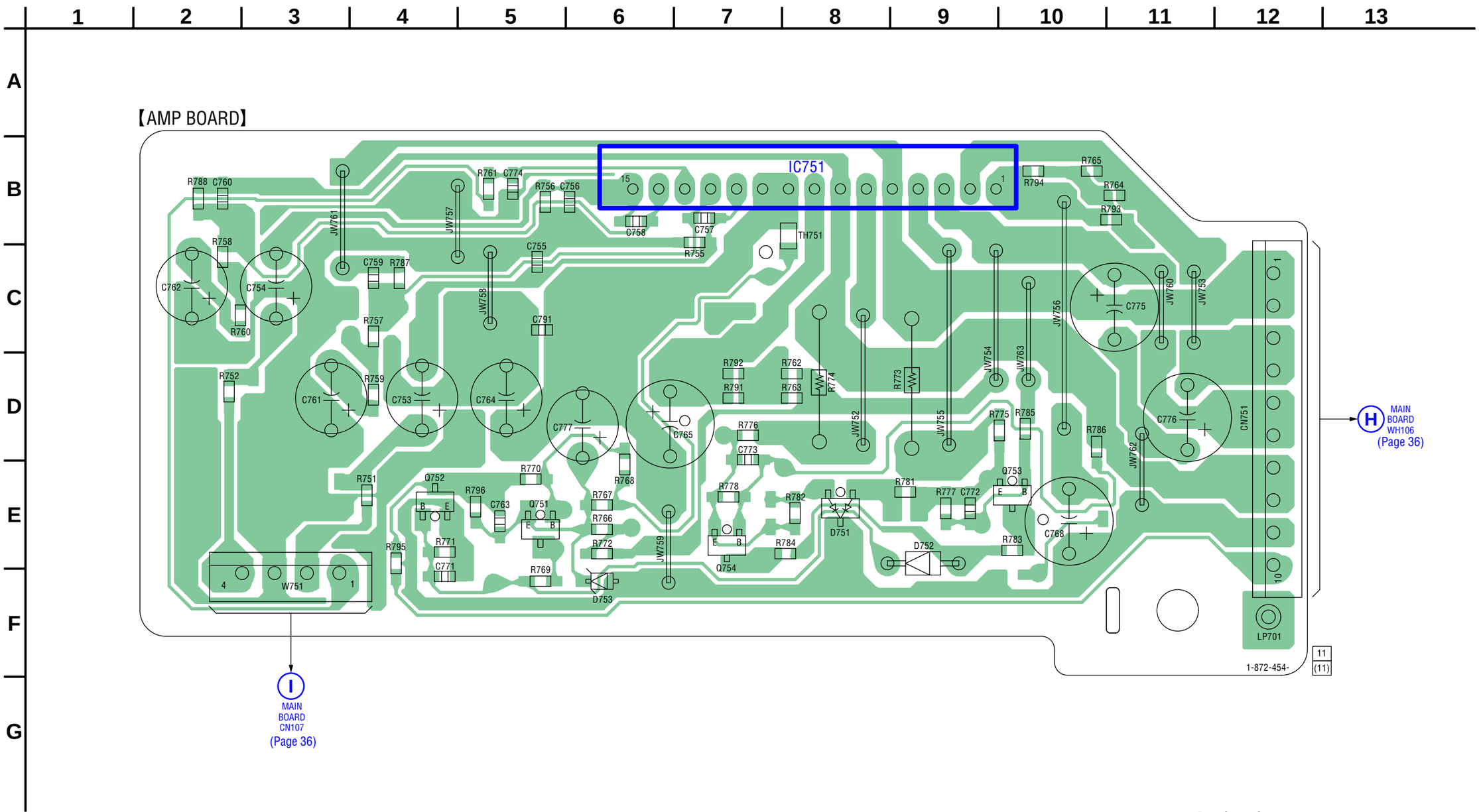
7-16. SCHEMATIC DIAGRAM – DMB16 Section (6/6) –



7-17. PRINTED WIRING BOARD – AMP Section –

• See page 35 for Circuit Boards Location.

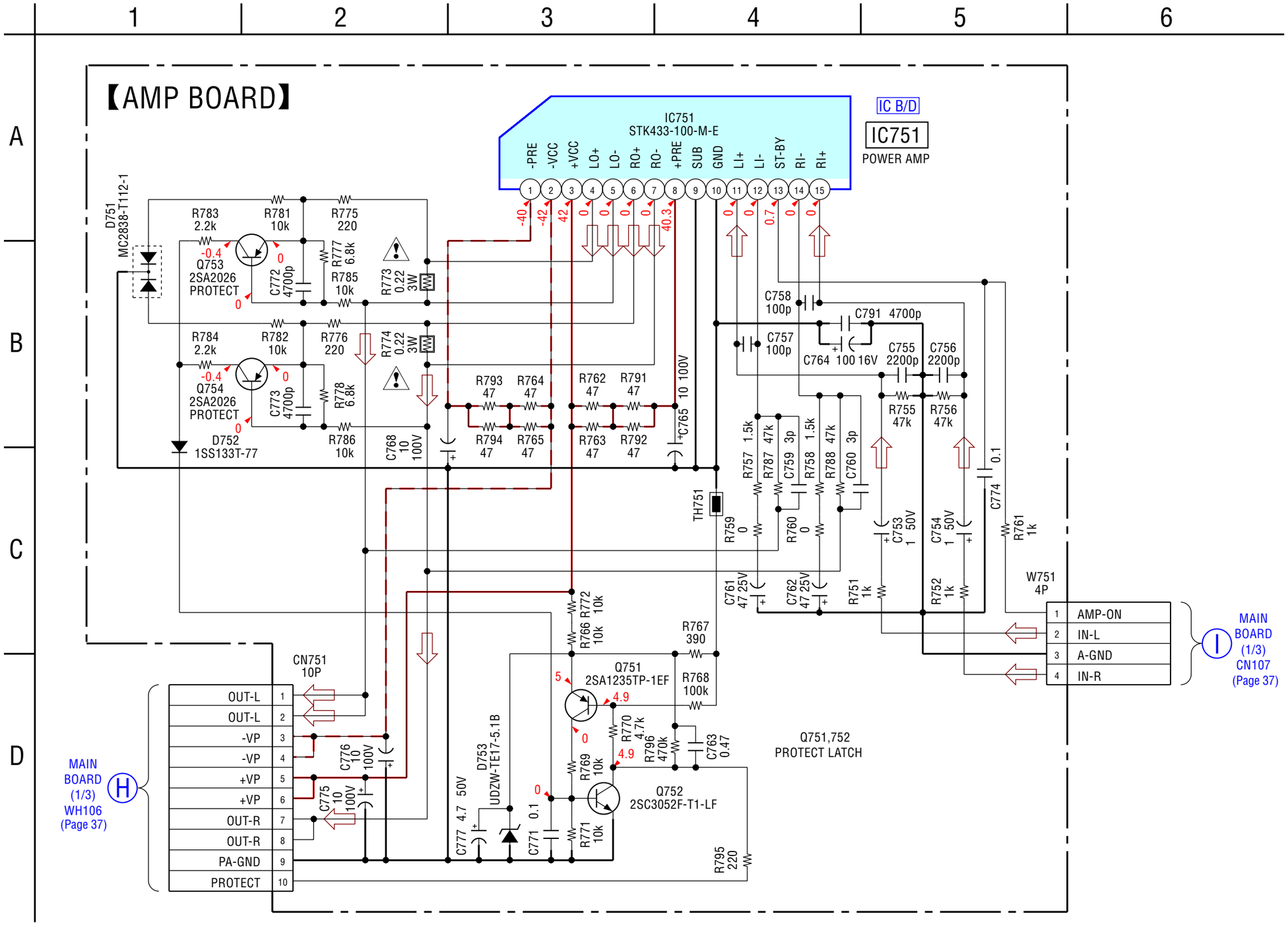
: Uses unleaded solder.



- **Semiconductor Location**

Ref. No.	Location
D751	E-8
D752	E-9
D753	F-6
IC751	B-8
Q751	E-5
Q752	E-4
Q753	E-10
Q754	E-7

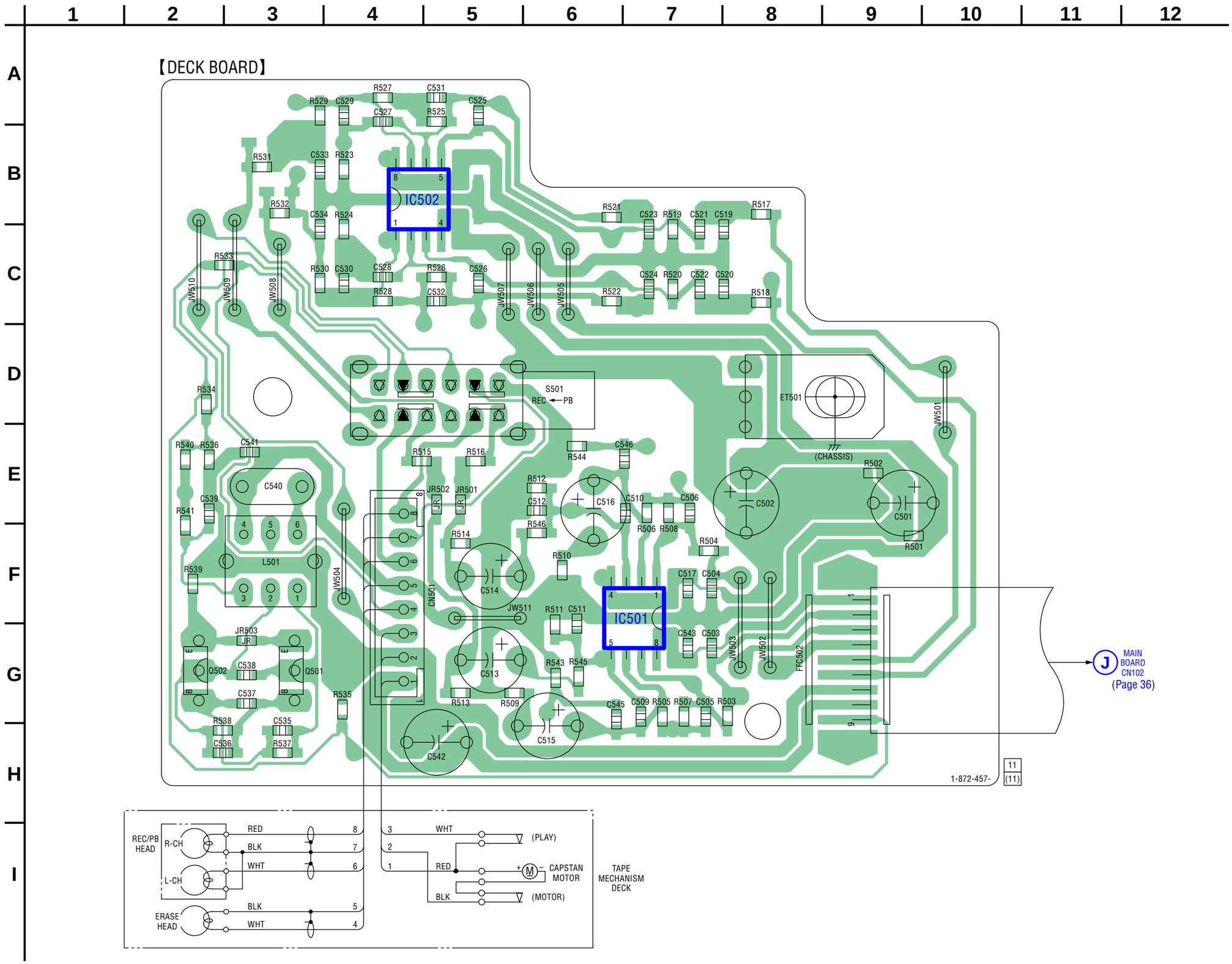
7-18. SCHEMATIC DIAGRAM – AMP Section – • See page 60 for IC Block Diagram.



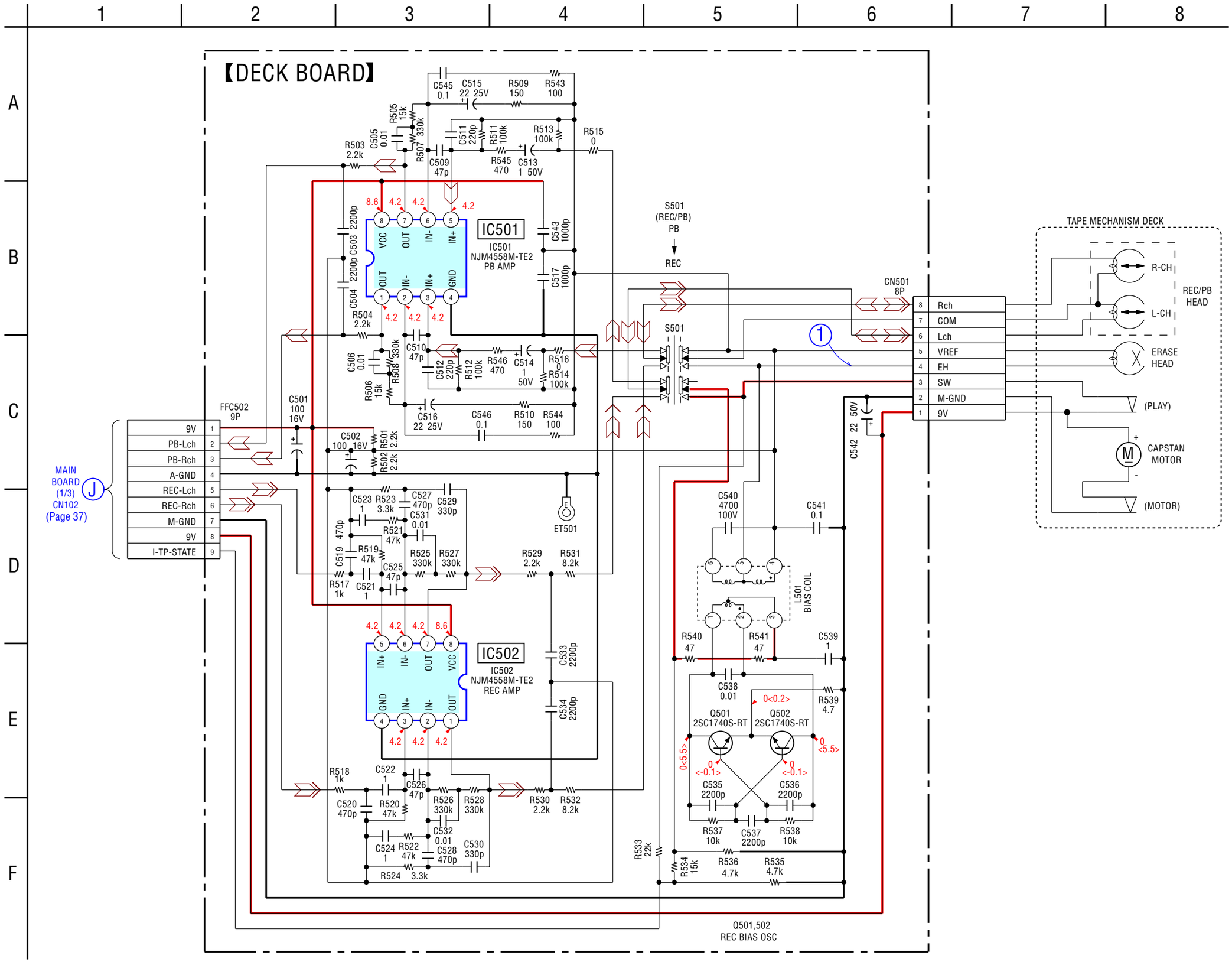
7-19. PRINTED WIRING BOARD – DECK Section –

• See page 35 for Circuit Boards Location.

: Uses unleaded solder.



7-20. SCHEMATIC DIAGRAM – DECK Section – • See page 58 for Waveform.

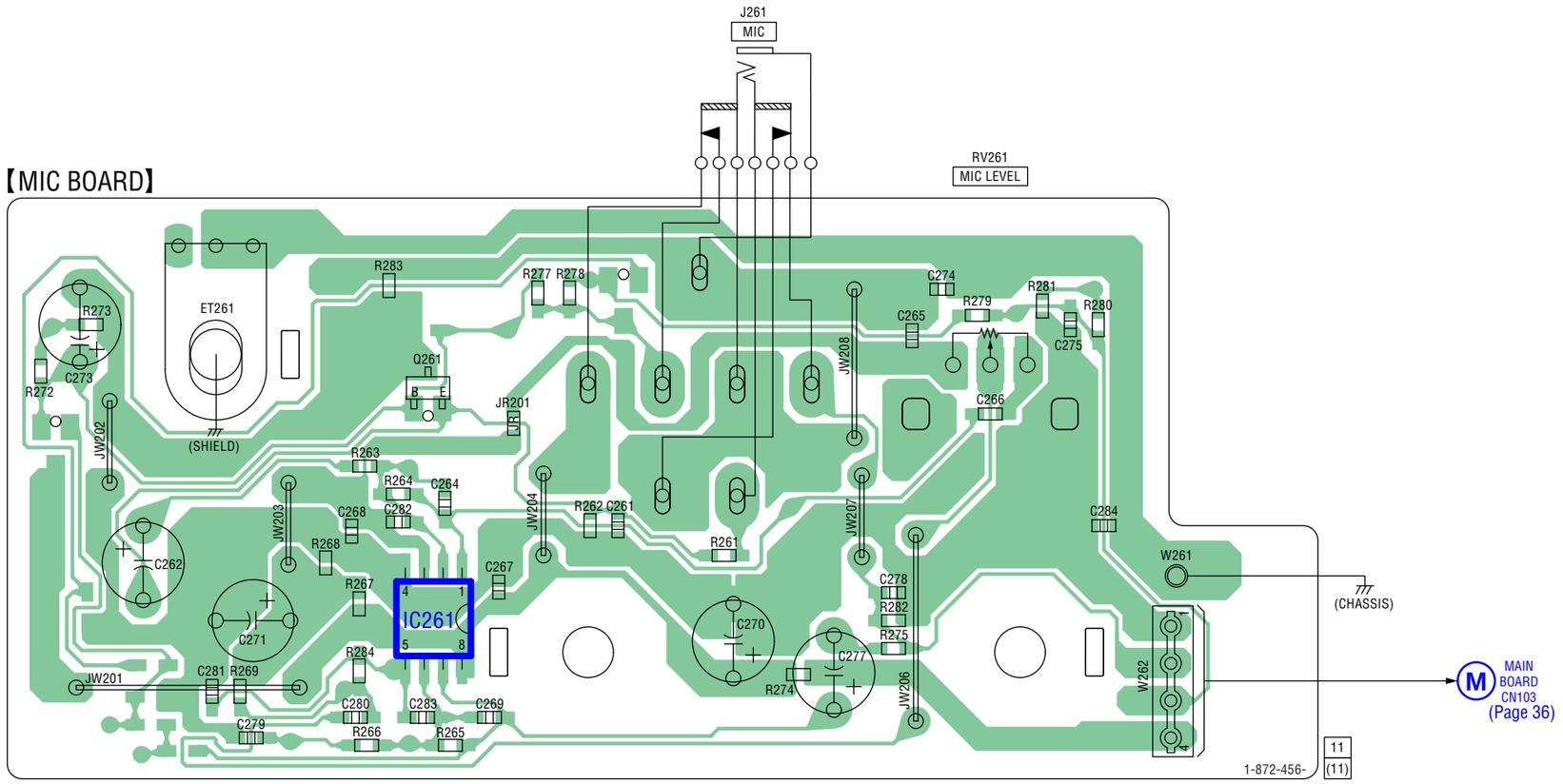


7-21. PRINTED WIRING BOARDS – MIC/JACK Section –

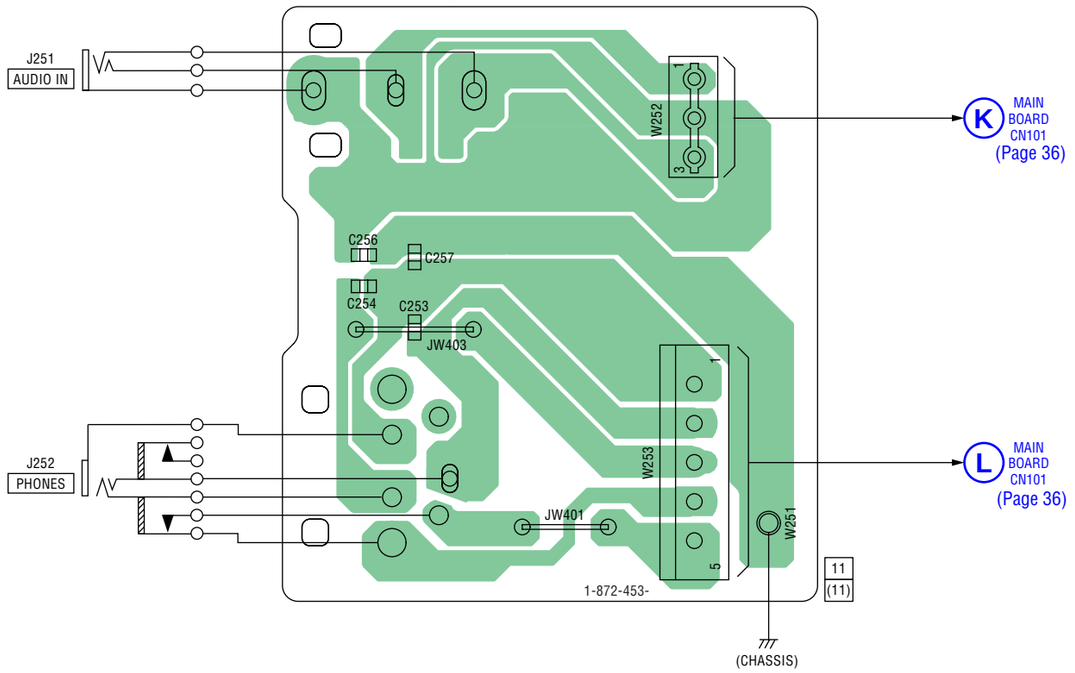
• See page 35 for Circuit Boards Location.

: Uses unleaded solder.

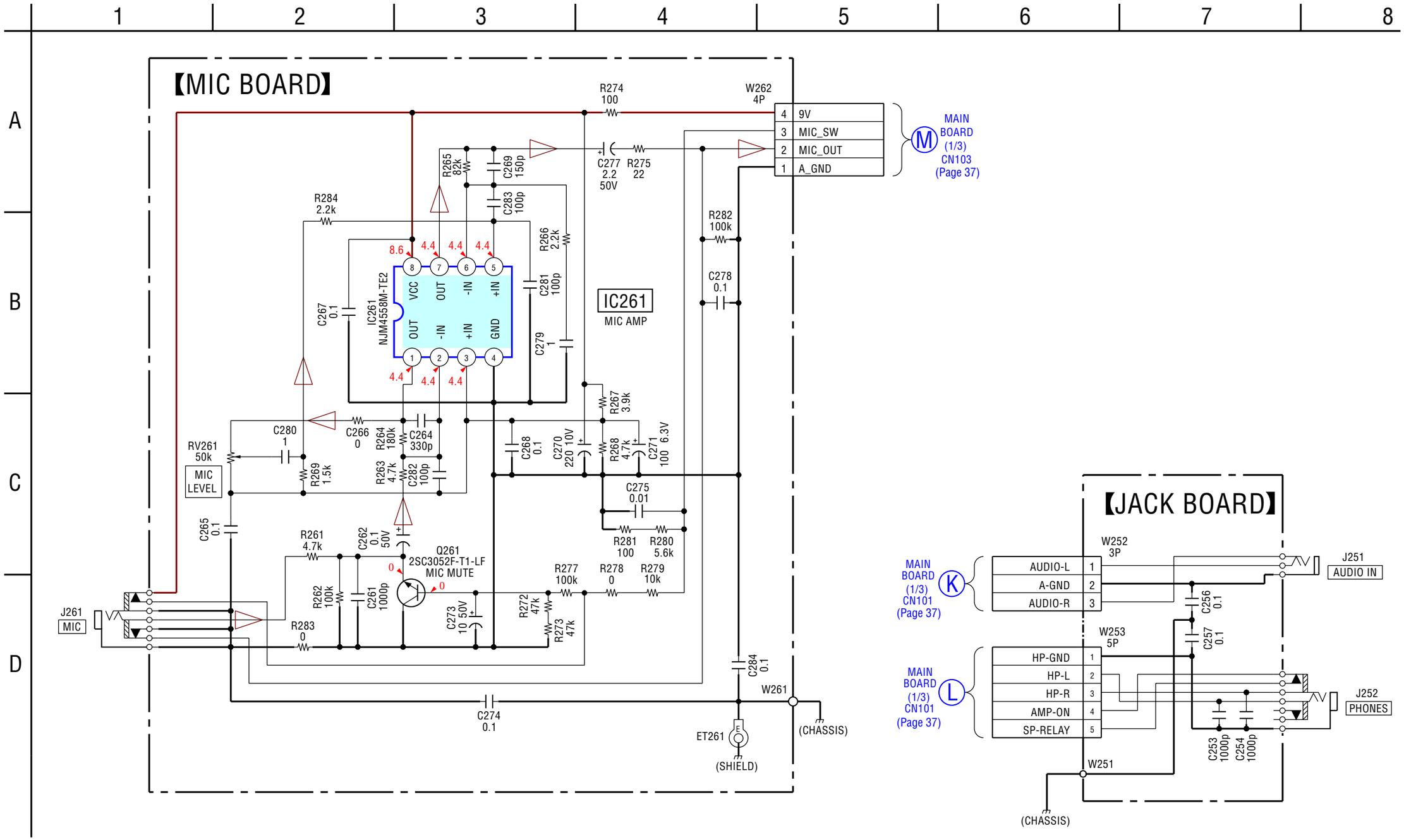
【MIC BOARD】



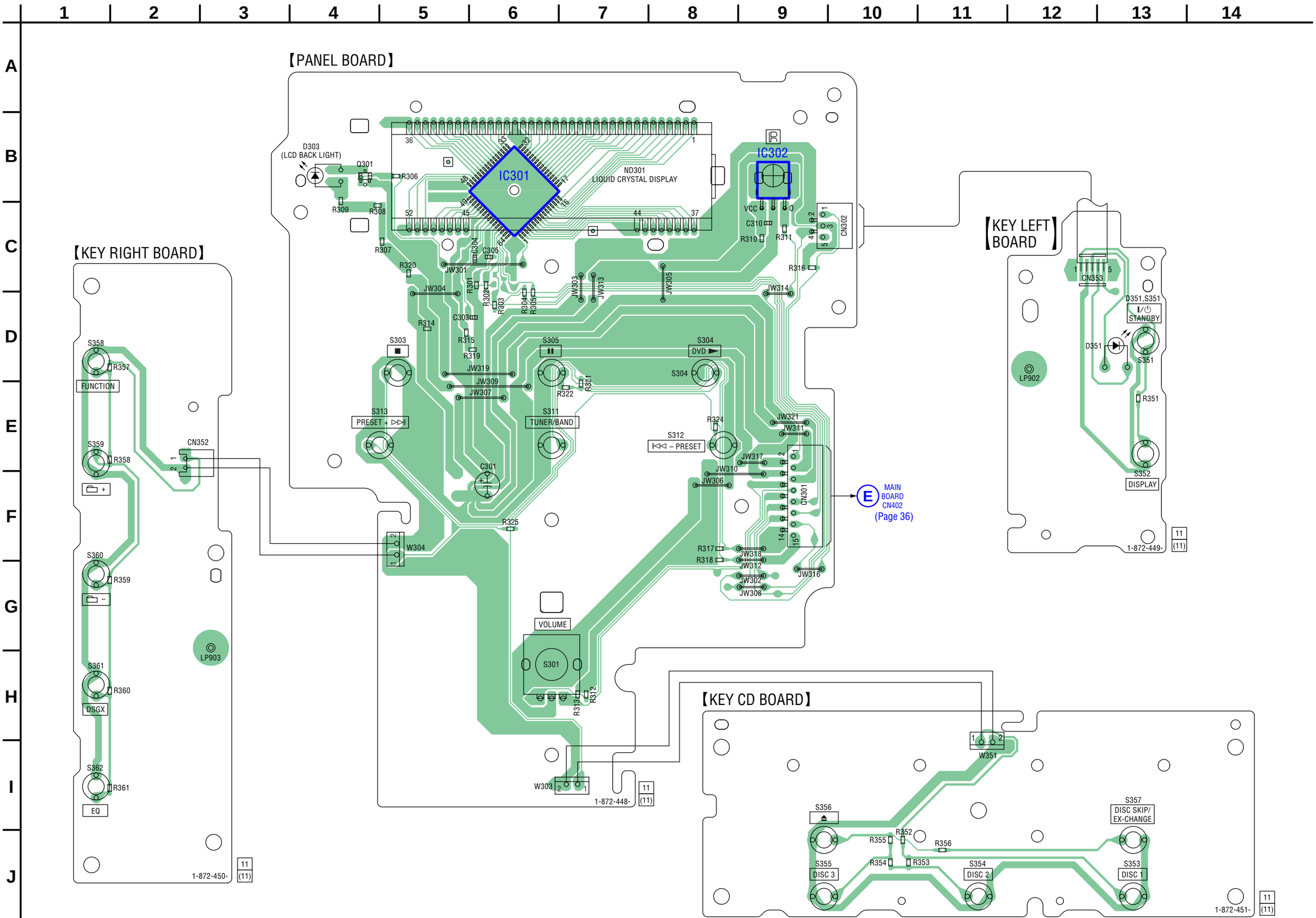
【JACK BOARD】



7-22. SCHEMATIC DIAGRAM – MIC/JACK Section –

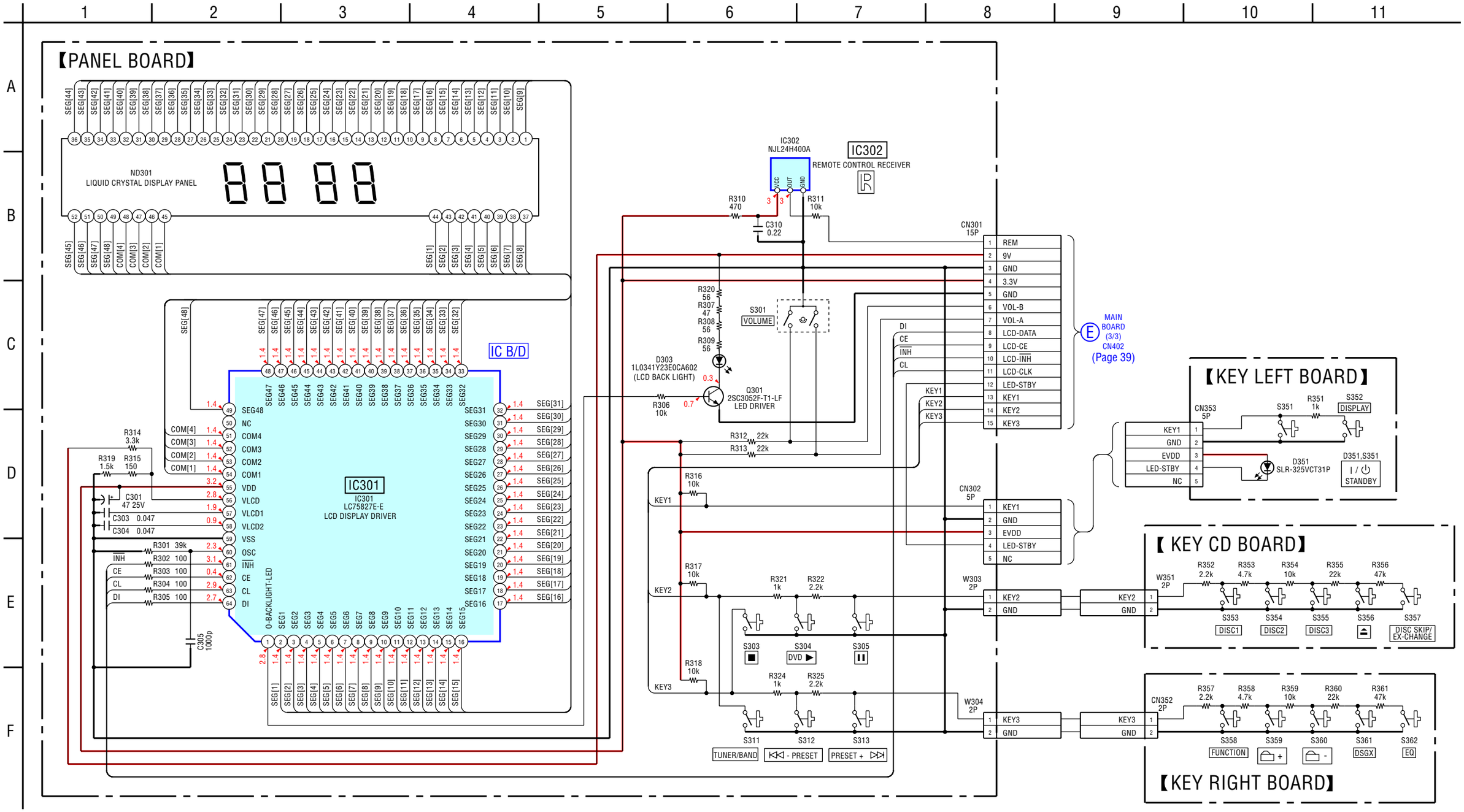


7-23. PRINTED WIRING BOARDS – PANEL Section – • See page 35 for Circuit Boards Location. : Uses unleaded solder.



7-24. SCHEMATIC DIAGRAM – PANEL Section –

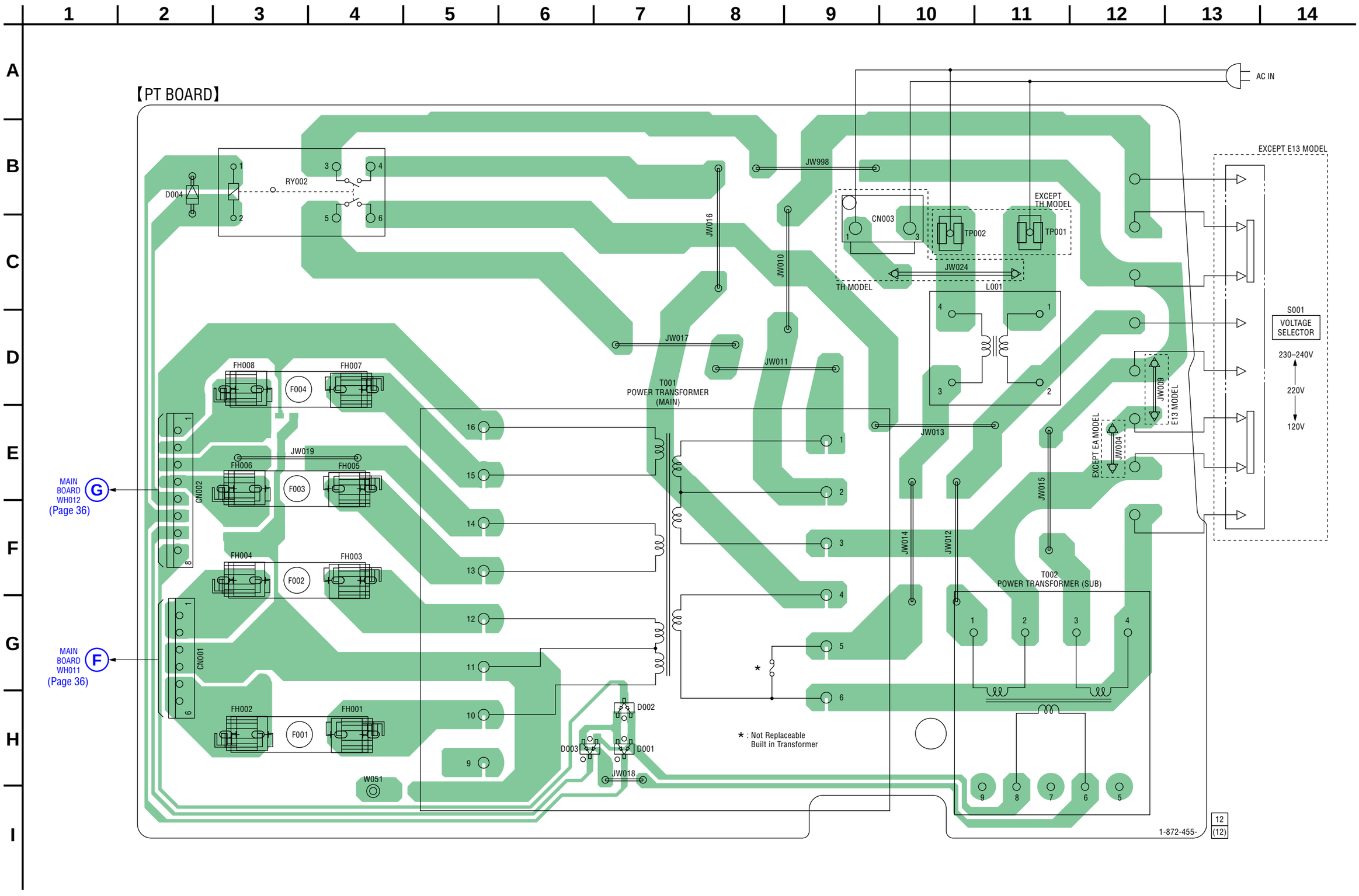
• See page 62 for IC Block Diagram.



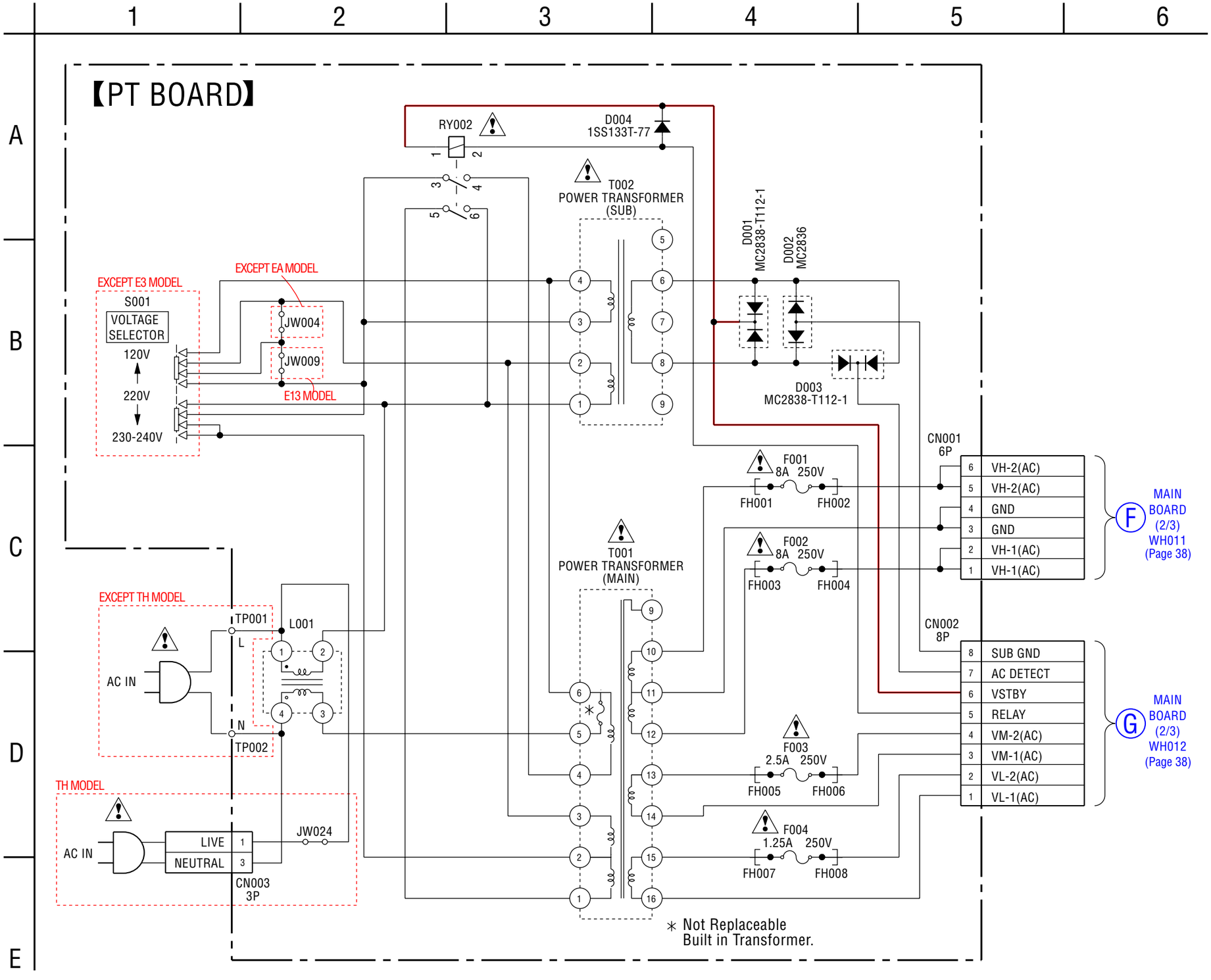
7-25. PRINTED WIRING BOARD – POWER Section –

• See page 35 for Circuit Boards Location.

: Uses unleaded solder.



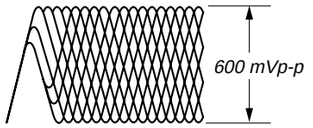
7-26. SCHEMATIC DIAGRAM – POWER Section –



• Waveforms

– DMB16 Board –

① IC102 ⑥ (DVDRFIP)



200 mV/DIV, 100 nsec/DIV

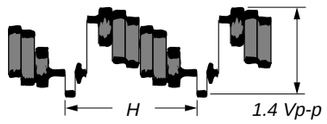
② IC102 ㉛ (FED)

100 mV/DIV, 1 msec/DIV

③ IC102 ㉜ (TEO)

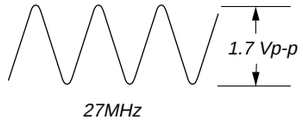
500 mV/DIV, 1 msec/DIV

④ IC102 ⑱ (YUV3)



500 mV/DIV, 20 µsec/DIV

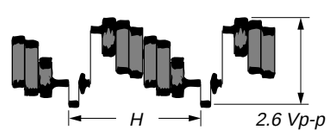
⑤ IC102 ㉙ (XTALI)



500 mV/DIV, 20 µsec/DIV

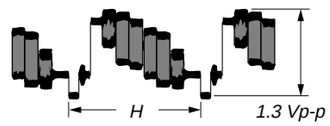
– MAIN Board –

① IC701 ② (OUT) (DVD PLAY)



1 V/DIV, 20 µs/DIV

② IC701 ④ (IN) (DVD PLAY)

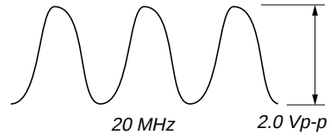


500 mV/DIV, 20 µs/DIV

③ IC401 ㉛ (XT2)

500 mV/DIV, 10 µs/DIV

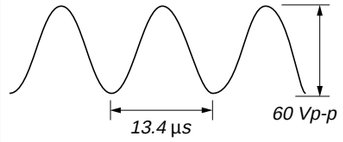
④ IC401 ㉞ (X2)



500 mV/DIV, 20 ns/DIV

– DECK Board –

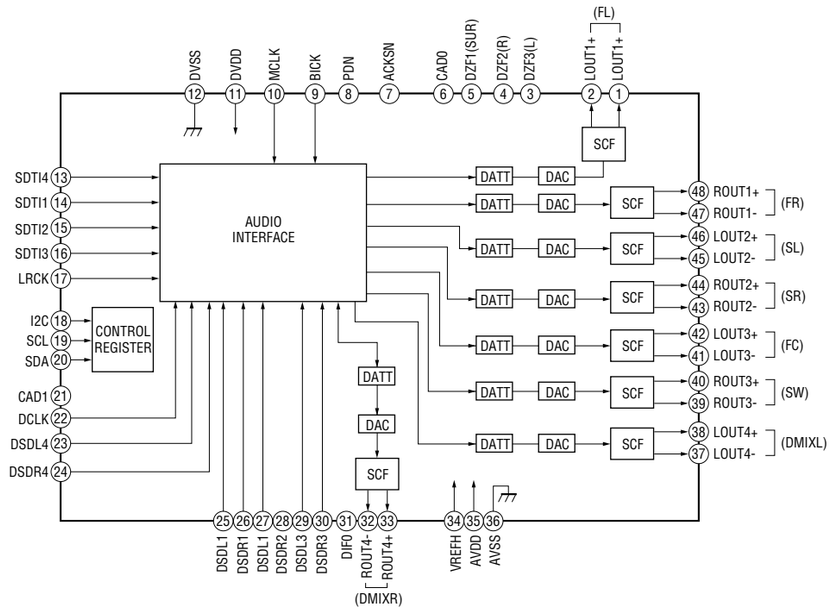
① CN501 ④ (EH) (REC (TAPE))



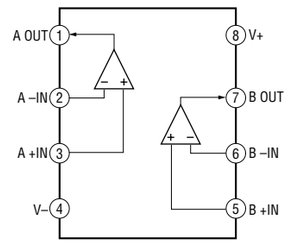
20 V/DIV, 10 µs/DIV

• IC Block Diagrams

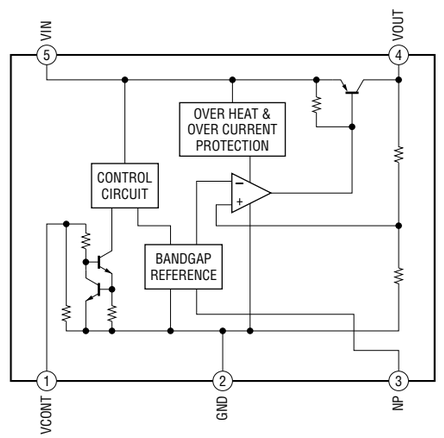
IC301 AK4358VQ-L (DMB16 Board (2/6))



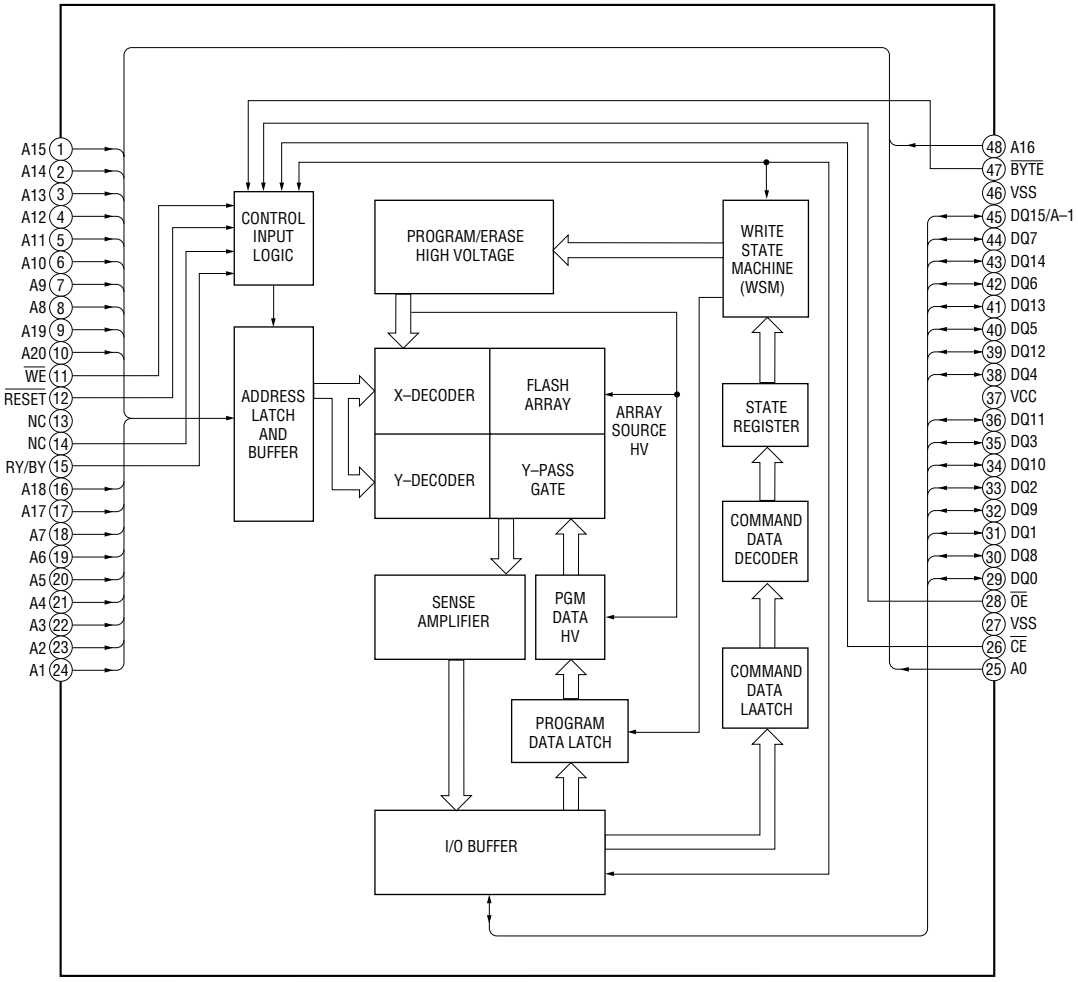
IC3711 NJM3414AV(TE2)
IC3771 NJM3414AV(TE2)
(DMB16 Board (2/6))



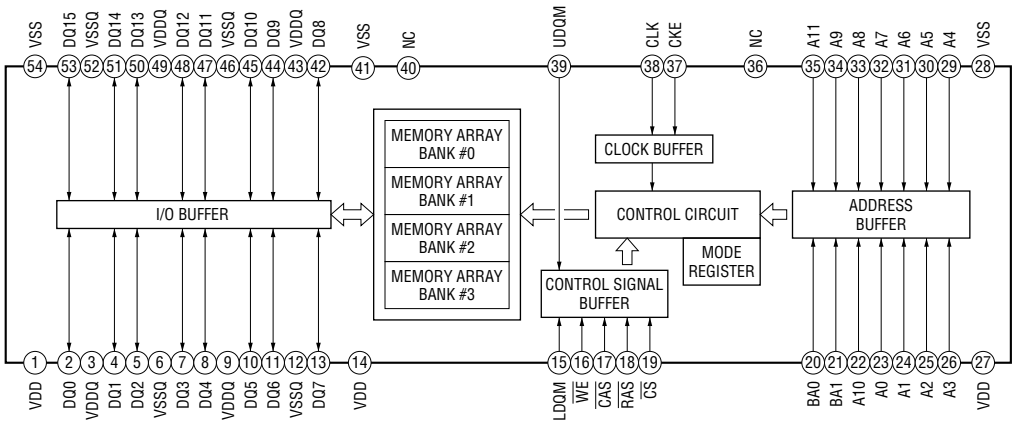
IC107 TK11133CSCL-G (DMB16 Board (3/6))
IC105 TK11133CSCL-G (DMB16 Board (5/6))



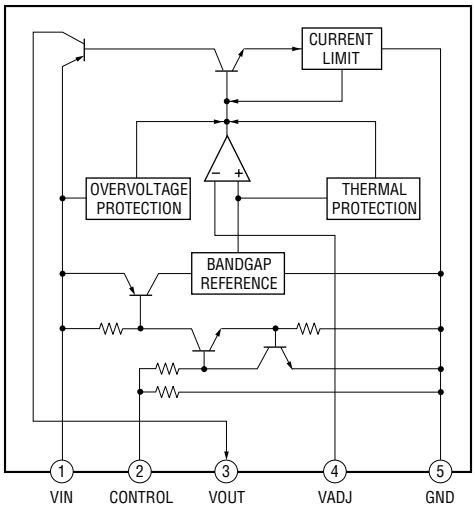
IC101 MX29LV320CBTC70-CBA4-0701CE (DMB16 Board (5/6))
IC101 MX29LV320CBTC70-CBA4-0701GA (DMB16 Board (5/6))



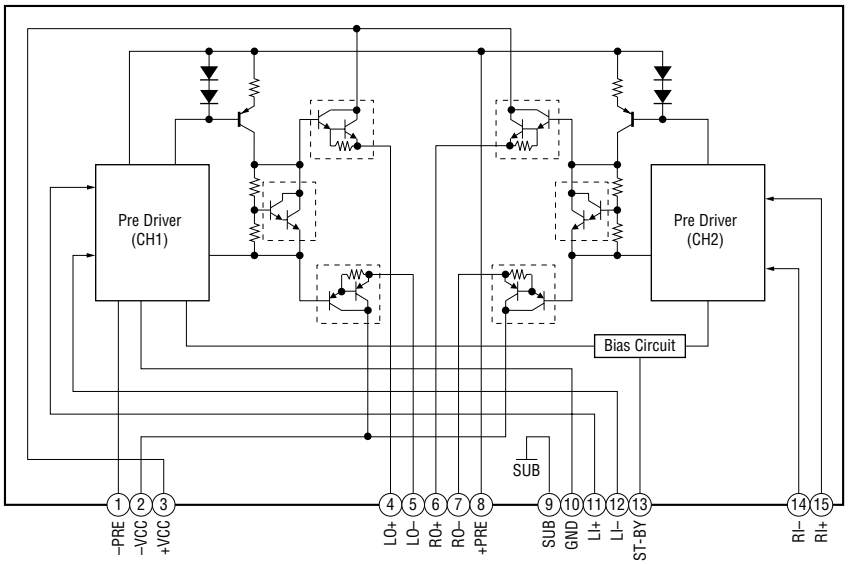
IC104 A2V64S40CTP-G75 (DMB16 Board (5/6))



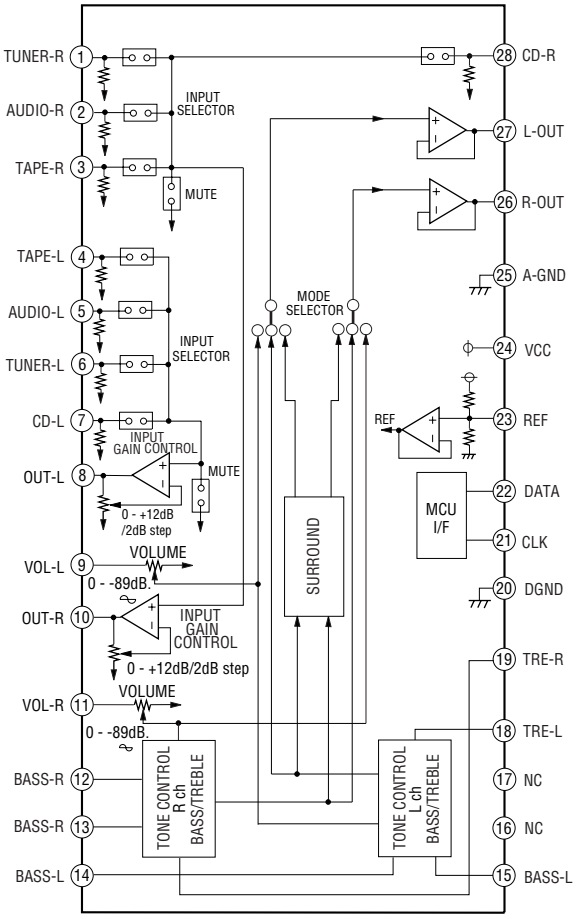
IC106 NJM2387ADL3(TE2) (DMB16 Board (5/6))



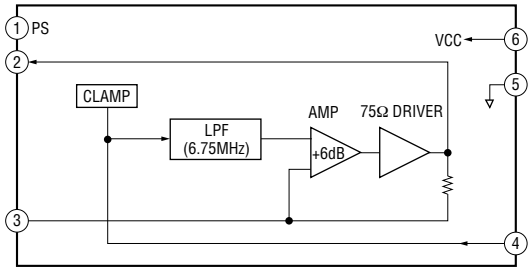
IC751 STK433-100-M-E (AMP Board)



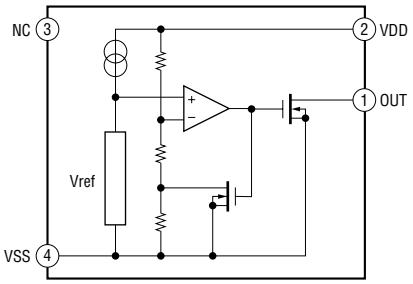
IC101 R2S15904SP (MAIN Board (1/3))



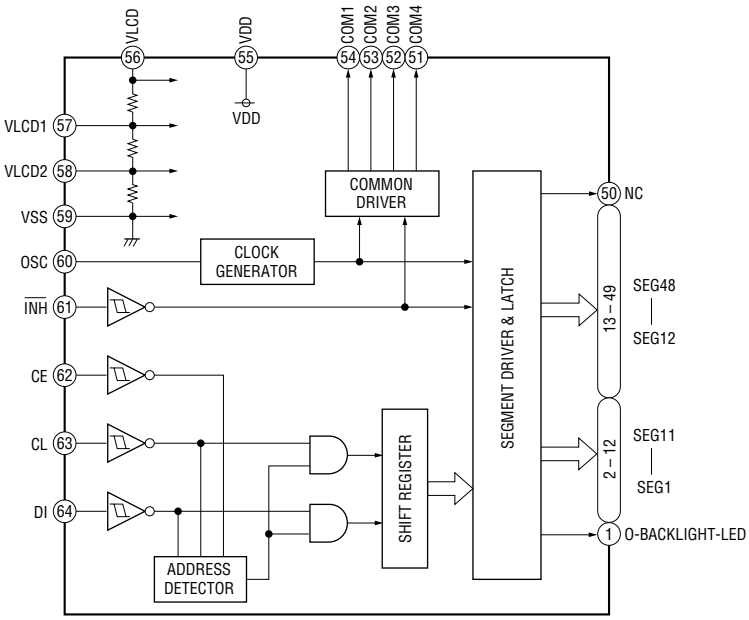
IC701 MM1671XNRE (MAIN Board (1/3))



IC402 RST3429UL (MAIN Board (3/3))



IC301 LC7827E-E (PANEL Board)



• **IC Pin Descriptions**

IC401 μPD78F1164GF(S)-301-GAS-AX (SYSTEM CONTROL) (MAIN BOARD (3/3))

Pin No.	Pin Name	I/O	Pin Description
1 to 9	NC	—	Not used
10	I-AC-CUT	I	AC off detection signal input
11, 12	NC	—	Not used
13	O-3CD-M1+	O	MTK M1 motor control signal output
14	O-3CD-M1–	O	MTK M1 motor control signal output
15	O-3CD-M2+	O	MTK M2 motor control signal output
16	O-3CD-M2–	O	MTK M2 motor control signal output
17	I-3CD-SW3	I	Disc tray status detection signal input from MTK
18	I-3CD-SW1	I	Disc tray status detection signal input from MTK
19	I-3CD-CHACK	I	Disc tray chack detection signal input from MTK
20	EVSS1	—	Ground
21	I-3CD-SW2	I	Disc tray status detection signal input from MTK
22	I-3CD-CLOSE	I	Disc tray close detection signal input from MTK
23	I-3CD-STOCK	I	Disc stock detection signal input from MTK
24	I-3CD-OPEN	I	Disc tray open detection signal input from MTK
25	O-FAN	O	Fan control signal output Not used.
26	I-TU-DI	I	Tuner serial data input
27	O-TU-CLK	O	Tuner serial clock signal output
28	O-TU-DO	O	Tuner serial data output
29	O-TU-CE	O	Tuner chip enable signal output
30	EVDD1	—	Power supply (+3.3V)
31	I-SD	I	Tuner tuned data input
32	O-AMP-ON	O	Speaker relay control signal output
33	O-$\overline{\text{REC-MUTE}}$	O	Recording muting control signal output
34	O-REC-CONTROL-A	O	Recording select signal output
35	O-REC-CONTROL-B	O	Recording select signal output
36	O-VOL-DATA	O	Serial data output to input selection and volume control IC
37	O-VOL-CLK	O	Serial clock output to input selection and volume control IC
38	O-$\overline{\text{BASSBOOST-ON}}$	O	Bass Boost on/off signal output
39	I-DVD-KRMOD	I	Karaoke mode detection signal input from MTK
40	O-MTK-MICREQ	O	Microphone status signal output
41	O-MTK-IFBSY	O	RS232 TXD signal output to MTK
42	O-MTK-MTRST	O	Master system reset signal output
43	I-DVD-XIFCS	I	XIFCS signal input from MTK
44	O-MTK-DATA	O	Serial data signal output to MTK
45	I-MTK-DATA	I	Serial data signal input from MTK
46	I-MTK-CLK	I	Serial clock signal input from MTK
47	AVREF1	—	A/D Converter reference voltage input (+3.3 V)
48, 49	NC	—	Not used
50	AVREF0	I	A/D Converter reference voltage input (+3.3 V)
51	AVSS	—	Ground
52	I-POWER-MONITOR	I	Power supply monitor signal input
53	I-MODEL	I	Model setting input
54	I-SUFFIX	I	Suffix setting input
55 to 57	NC	—	Not used
58	I-TP-STATE	I	Tape status signal input
59 to 64	NC	—	Not used
65	I-KEY3	I	Key signal input (A/D input)

Pin No.	Pin Name	I/O	Pin Description
66	I-KEY2	I	Key signal input (A/D input)
67	I-KEY1	I	Key signal input (A/D input)
68	O-LED-STBY	O	Standby-LED drive signal output
69	O-LCD-$\overline{\text{INH}}$	O	Inhibit signal output to LCD Driver
70	O-LCG-CLK	O	Serial clock signal output to LCD Driver
71	O-LCD-CE	O	Chip enable signal output to LCD Driver
72	O-LCD-DATA	O	Serial data signal output to LCD Driver
73	I-VOL-A	I	Jog dial A-pulse input from the VOLUME rotary encoder
74	I-VOL-B	I	Jog dial B-pulse input from the VOLUME rotary encoder
75	NC	—	Not used (Connected to Ground)
76	I-$\overline{\text{MIC-DETECT}}$	I	Microphone connection detection signal input
77	I-$\overline{\text{HP-DETECT}}$	I	Headphone connection detection signal input
78	O-POWER	O	Main power control signal output
79	O-MTK-POWER	O	MTK power control signal output
80	NC	—	Not used (Connected to Ground)
81	I-REM	I	Remote control receiver sircs signal input
82	O-$\overline{\text{VIDEO-MUTE}}$	O	Video output muting signal output
83	I-KEY-WAKE-UP	I	Standby-key interrupt signal input
84 to 88	NC	—	Not used
89	SI/SO	I/O	Serial data input/output
90	$\overline{\text{RESET}}$	I	System reset signal input
91	XT2	—	Main system clock input (5 MHz)
92	XT1	—	Main system clock output (5 MHz)
93	FLMD0	—	FL mode setting input
94	X2	—	Sub system clock input (32.768 kHz)
95	X1	—	Sub system clock output (32.768 kHz)
96	REGC	—	Regulator ripple capacitor connecting
97	VSS	—	Ground
98	EVSS	—	Ground
99	VDD	—	Power supply (+3.3V)
100	EVDD0	—	Power supply (+3.3V)

IC102 CXD9849R (CD/DVD RF AMP, FOCUS/TRACKING ERROR AMP, DVD SYSTEM PROCESSOR, DIGITAL SERVO PROCESSOR) (DMB16 BOARD (4/6))

Pin No.	Pin Name	I/O	Pin Description
1	AGND	—	Ground
2	DVDA	I	AC coupled input path A
3	DVDB	I	AC coupled input path B
4	DVDC	I	AC coupled input path C
5	DVDD	I	AC coupled input path D
6	DVDRFIP	I	AC coupled DVD RF signal input RFIP
7	DVDRFIN	I	AC coupled DVD RF signal input RFIN Not used in this set. (Open)
8	NA	I	DC coupled main-beam RF signal input A
9	NB	I	DC coupled main-beam RF signal input B
10	MC	I	DC coupled main-beam RF signal input C
11	MD	I	DC coupled main-beam RF signal input D
12	SA	I	DC coupled sub-beam RF signal input A Not used in this set. (Open)
13	SB	I	DC coupled sub-beam RF signal input B Not used in this set. (Open)
14	SC	I	DC coupled sub-beam RF signal input C Not used in this set. (Open)
15	SD	I	DC coupled sub-beam RF signal input D Not used in this set. (Open)
16	CDFON	I	CD focusing error negative input Not used in this set. (Open)
17	CDFOP	I	CD focusing error positive input Not used in this set. (Open)
18	TNI	I	3 beam satellite PD signal negative input
19	TPI	I	3 beam satellite PD signal positive input
20	MDI1	I	Laser power PD monitor signal input
21	MDI2	I	Laser power PD monitor signal input
22	LDO2	O	Laser drive signal output
23	LDO1	O	Laser drive signal output
24	SVDD3	—	Power Supply (+3.3 V)
25	CSD	O	Central servo, Positive main beam summing signal output Not used in this set. (Open)
26	RFLVL	O	RFRP low pass, or Positive main beam summing signal output Not used in this set. (Open)
27	SGND	—	Ground
28	V2REFO	O	Reference voltage 2.8 V
29	V2O	O	Reference voltage 2.0 V
30	VREFO	O	Reference voltage 1.4 V
31	FEO	O	Focus error monitor signal output Not used in this set. (Open)
32	TEO	O	Tracking error monitor signal output Not used in this set. (Open)
33	TEZISLY	O	TE Slicing Level Not used in this set.
34	OPOUT	O	OP amp output Not used in this set. (Open)
35	OPIN	I	OP amp negative input Not used in this set. (Open)
36	OPIN	I	OP amp positive input Not used in this set. (Open)
37	DMO	O	Disk motor control signal output, PWM signal output
38	FMO	O	Feed motor signal control, PWM signal output
39	TROPENPWM	O	Tray PWM output/Tray open signal output. Not used in this set. (Open)
40	IOPMON	I	General PWM signal input
41	TRO	O	Tracking servo signal output
42	FOO	O	Focus servo signal output
43	DVSS	—	Ground
44	NC	—	Not used. (Open)
45	NC	—	Not used. (Open)
46	DVDD3	—	Power Supply (+3.3 V)

Pin No.	Pin Name	I/O	Pin Description
47	SPFG	I	Motor Hall sensor signal input
48	DSEL	O	Select signal output Not used in this set. (Open)
49	WIDE	I	Wide signal output Not used in this set.
50	MSW	O	Volume control signal output
51	MAMUTE	O	MAMUTE signal output to System Controller Not used in this set. (Open)
52	DVDD18	—	Power Supply (+1.8 V)
53 to 58	IOA 2 to 7	O	Address bus 2 to 7 output to PROM
59	HIGHA0	O	Address bus 8 output to PROM
60, 61	IOA18, 19	O	Address bus 18, 19 output to PROM
62	DVSS	—	Ground
63	APLLCAP	I	APLL External Capacitance connection
64	APLLVSS	—	Ground
65	VDD3	—	Power Supply (+3.3 V)
66	IOWR	O	WE signal output to PROM
67	A16	O	Address bus 16 output to PROM
68 to 72	HIGHA 7 to 3	O	Address bus 15 to 11 output to PROM
73	DVDD3	—	Power Supply (+3.3 V)
74, 75	HIGHA 2, 1	O	Address bus 10, 9 output to PROM
76	IOA20	O	Address bus 20 output to PROM
77	IOCS	O	CE signal output to PROM
78	IOA1	O	Address bus 1 output to PROM
79	IOOE	O	OE signal output to PROM
80	DVDD3	—	Power Supply (+3.3 V)
81 to 84	AD 0 to 3	I	Data bus 0 to 3 input from PROM
85	DVSS	—	Ground
86 to 88	AD 4 to 6	I	Data bus 4 to 6 input from PROM
89	IOA21	O	Address bus 21 output to PROM
90	ALE	O	Address latch enable Not used in this set. (Open)
91	AD7	I	Data bus 7 input from PROM
92	A17	O	Address bus 17 output to PROM
93	IOA0	O	Address bus 0 output to PROM
94	DVSS	—	Ground
95	UWA	I	System Controller write strobe Not used in this set. (Open)
96	URD	I	System Controller read strobe Not used in this set. (Open)
97	DVDD18	—	Power Supply (+1.8 V)
98	IFSDO	I	DVD SOD signal input from System Controller
99	IFCK	O	DVD SCO signal output to System Controller
100	XIFCS	O	DVD XIFCS signal output to System Controller
101	IFSDI	I	VIFBUSY signal output from System Controller
102	SCL	O	SCL signal output to EEPROM
103	SDA	O	SDA signal output to EEPROM
104	TRG-SW	O	RS232 RXD signal output Not used in this set. (Open)
105	IFBSY	I	RS232 TXD signal input from System Controller
106	RXD	I	RD232 RXD clock
107	TXD	I	RD232 TXD data
108	DVDD3	—	Power Supply (+3.3 V)
109	ICE	I	ICE mode enable Not used in this set. (Open)
110	PRST	I	MTRST signal input from System Controller
111	IR	I	IR control signal input Not used in this set. (Open)
112	INT0	I	External interrupt Not used in this set. (Open)

Pin No.	Pin Name	I/O	Pin Description
113	DQMO	O	DQM0 signal output to SD-RAM
114	MREQ	I	DQM signal input
115	RD7	I	Data bus 7 from SD-RAM
116	DVSS	—	Ground
117, 118	RD 6, 5	I	Data bus 6, 5 from SD-RAM
119	DVSS	—	Ground
120, 121	RD 4, 3	I	Data bus 4, 3 from SD-RAM
122	DVDD18	—	Power Supply (+1.8 V)
123 to 125	RD 2 to 0	I	Data bus 2 to 0 from SD-RAM
126	RD15	I	Data bus 15 from SD-RAM
127	DVDD3	—	Power Supply (+3.3 V)
128	RD 14	I	Data bus 14 from SD-RAM
129 to 133	RD 13 to 9	I	Data bus 13 to 9 from SD-RAM
134	DVSS	—	Ground
135	RD8	I	Data bus 8 from SD-RAM
136	GPI0	—	Not used in this set. (Open)
137	DQM1	O	DQM1 signal output to SD-RAM
138	RWE	O	WE signal output to SD-RAM
139	CAS	O	CAS signal output to SD-RAM
140	RAS	O	RAS signal output to SD-RAM
141	DVDD3	—	Power Supply (+3.3 V)
142	RCS	O	RCS signal output to SD-RAM
143	BAO	O	BAO signal output to SD-RAM
144	DVSS	—	Ground
145	BA1	O	BA1 signal output to SD-RAM
146	RA10	O	Address bus 10 output to SD-RAM
147	RA0	O	Address bus 0 output to SD-RAM
148	DVSS	—	Ground
149 to 151	RA 1 to 3	O	Address bus 1 to 3 output to SD-RAM
152	DVDD18	—	Power Supply (+1.8 V)
153	NC	—	Not used. (Open)
154	NC	—	Not used. (Open)
155	DVDD3	—	Power Supply (+3.3 V)
156	RCLK	O	CLK signal output to SD-RAM
157	CKE	O	CKE signal output to SD-RAM
158 to 160	RA 11 to 8	O	Address bus 11 to 8 output to SD-RAM
161	DVSS	—	Ground
162	RA7	O	Address bus 7 output to SD-RAM
163	DVSS	—	Ground
164 to 166	RA 6 to 4	O	Address bus 6 to 4 output to SD-RAM
167	DVDD3	—	Power Supply (+3.3 V)
168	DISC/X	—	Not used in this set. (Open)
169	RGB	O	RGB control signal output Not used in this set. (Open)
170	TSD M	O	TSDM signal output
171	NC	—	Not used in this set. (Open)
172	NC	—	Not used in this set. (Open)
173	DVDD18	—	Power Supply (+1.8 V)
174	FWD	—	Not used in this set. (Open)
175	NC	—	Not used. (Open)
176	LIMSW	O	LIMSW signal output to Optical pick-up

Pin No.	Pin Name	I/O	Pin Description
177	OCSW	I	SEN signal input from System Controller/OCSW signal input Not used. (Open)
178	REW	—	Not used in this set. (Open)
179	CKSW	I	CKSW signal input Not used in this set. (Open)
180	NC	—	Not used in this set. (Open)
181	NC	—	Not used in this set. (Open)
182	DVDD3	—	Power Supply (+3.3 V)
183	NC	—	Not used in this set. (Open)
184	NC	—	Not used in this set. (Open)
185	NC	—	Not used in this set. (Open)
186	NC	—	Not used in this set. (Open)
187	NC	—	Not used in this set. (Open)
188	NC	—	Not used in this set. (Open)
189	DAVCC	—	Power Supply (+3.3 V)
190	VREF	I	Bandgap reference voltage Not used in this set. (Open)
191	FS	O	Full scale adjustment (pull down)
192	YUV0	—	Not used in this set. (Open)
193	DAVSS	—	Ground
194	YUV1	O	Y signal output to VIDEO AMP Not used in this set.
195	DAVDD	—	Power Supply (+3.3 V)
196	YUV2	O	CHROMA signal output to VIDEO AMP Not used in this set.
197	DAVSS	—	Ground
198	YUV3	O	VIDEO signal output to VIDEO AMP
199	DAVDD	—	Power Supply (+3.3 V)
200	YUV4	O	G signal output to VIDEO AMP Not used in this set.
201	DAVSS	—	Ground
202	YUV5	O	B signal output to VIDEO AMP Not used in this set.
203	YUV6	O	R signal output to VIDEO AMP Not used in this set.
204	DVDD3	—	Power Supply (+3.3 V)
205	MIC/VSYNC	I	Microphone status signal input
206	VOICE/YUV7	I	Karaoke voice signal input
207	KRMOB/HSYNC	O	Karaoke mode detection signal output
208	SMSCK	I	Karaoke score signal input
209	SPDATA/SMSDI	I	Audio data of SPDIF input
210	MUTE	O	Mute signal output
211	MUTE123	O	Mute signal output
212	DVDD3	—	Power Supply (+3.3 V)
213	ALRCK	I	Audio left/right channel clock signal input
214	ABCK	O	Audio bit clock signal output
215	ACLK	I	Audio DAC master clock signal input
216	DVSS	—	Ground
217	ASDATA0	O	Audio serial data signal output
218	ASDATA1	O	Audio serial data signal output
219	ASDATA2	O	Audio serial data signal output
220	XRST	O	Reset signal output
221	DVDD18	—	Power Supply (+1.8 V)
222	ASDATA4	O	Audio serial data signal output
223	DVSS	—	Ground
224	DWIDE	—	Not used in this set. (Open)
225	SDPIF	O	SPDIF signal output
226	RFGND18	—	Ground

Pin No.	Pin Name	I/O	Pin Description
227	RFVDD18	—	Power Supply (+1.8 V)
228	XTALO	O	Oscillator signal output (27 MHz)
229	XTALI	I	Oscillator signal input (27 MHz)
230	JITFO	O	RF jitter meter output
231	JITFN	I	Negative input of operation amplifier for RF jigger meter
232	PLLVSS	—	Ground
233	IDAC	—	Not Used.
234	PLLVDD3	—	Power Supply (+3.3 V)
235	LPFON	O	Negative output of loop filter amplifier
236	LPFIP	I	Positive input of loop filter amplifier
237	LPFIN	I	Negative input of loop filter amplifier
238	LPFOP	O	Positive output of loop filter amplifier
239	VDD3	I	Power Supply (+3.3 V)
240	NC	—	Not used. (Open)
241	VSS	—	Ground
242	NC	—	Not used. (Open)
243	NC	—	Not used. (Open)
244	RFVDD3	—	Power Supply (+3.3 V)
245	RFRPDC	I	RFRP signal input
246	RFRPAC	I	RFRP signal input
247	HRFZC	I	High frequency RF ripple zero crossing
248	CRTPLP	O	Defect level filter capacitor connecting
249	RFGND	—	Ground
250	NC	—	Not used. (Open)
251	NC	—	Not used. (Open)
252	OSP	O	RF offset cancellation capacitor connecting
253	OSN	I	RF offset cancellation capacitor connecting
254	RFGC	O	RF offset loop capacitor connecting for DVD-ROM
255	IREF	I	Current reference input
256	AVDD3	—	Power Supply (+3.3 V)

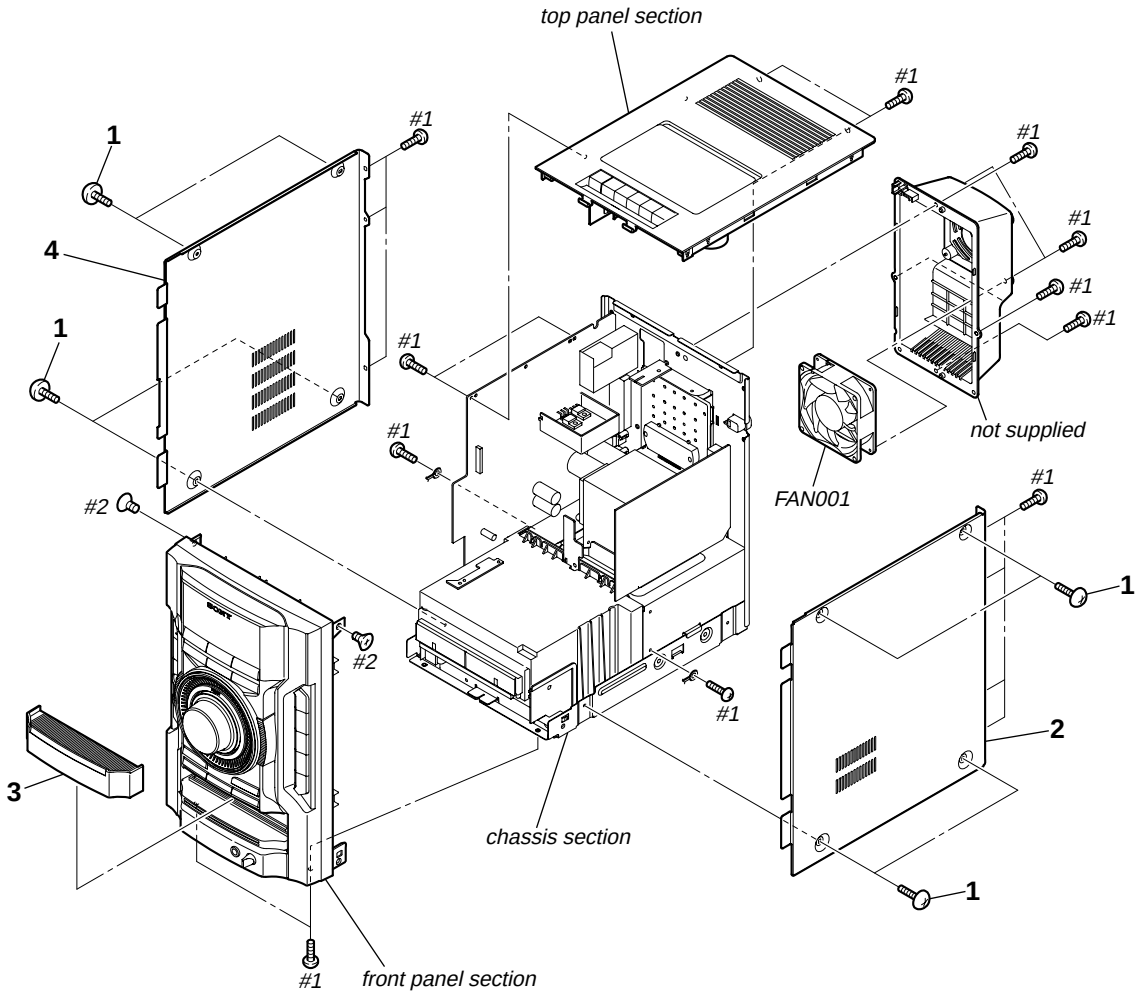
SECTION 8
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Accessories are given in the last of this parts list.
- Abbreviation
  E3 : 240 V AC area in E model
  E12 : 220-240 V AC area in E model
  E13 : Russian model
  E15 : Iran model
  EA : Saudi Arabia model
  PH : Philippine model
  SP : Singapore model
  TH : Thai model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

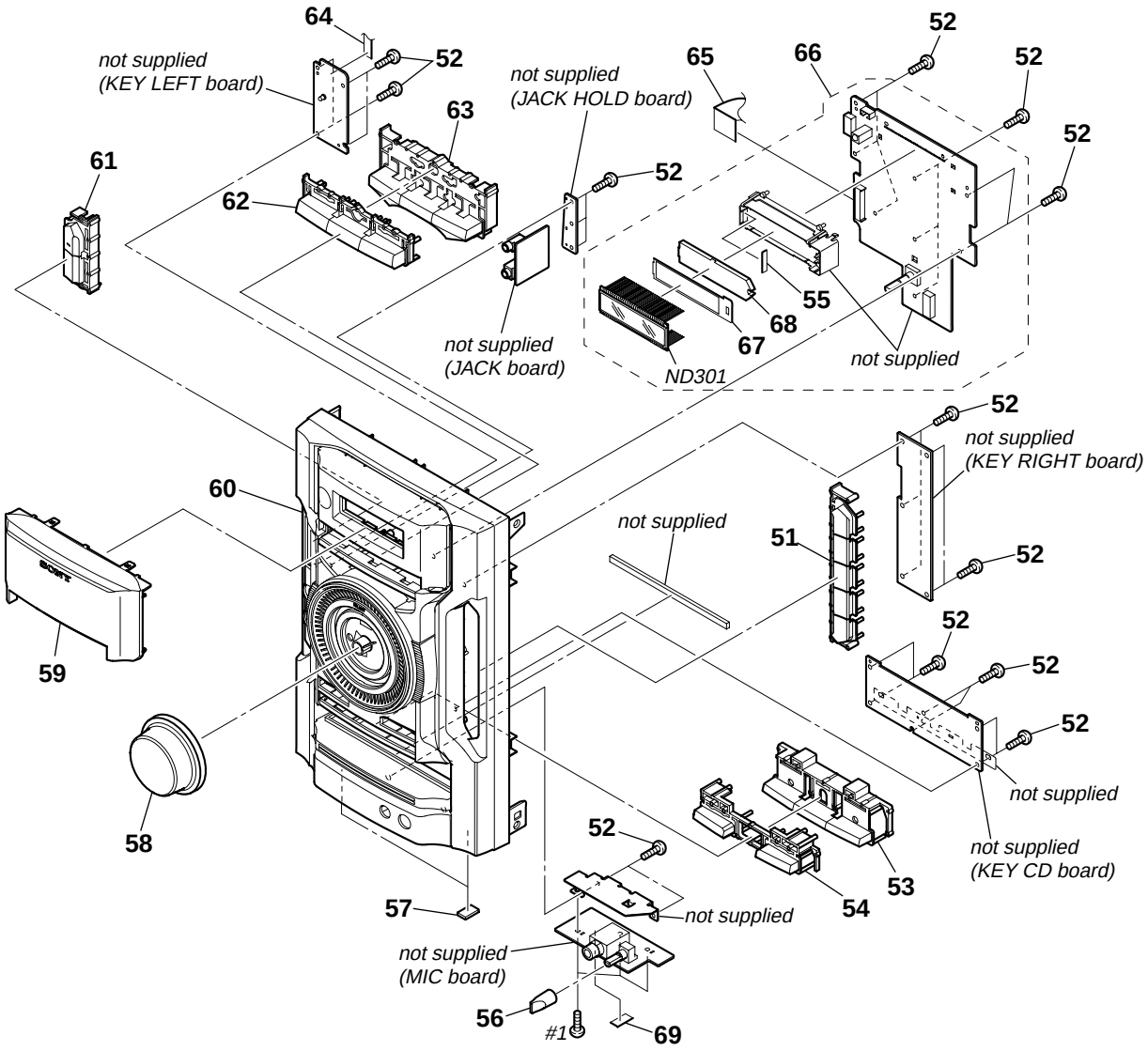
8-1. OVERALL SECTION



Ref. No.	Part No.	Description	Remark
1	3-363-099-32	SCREW (CASE 3 TP2)	
2	2-898-294-01	PANEL (R), SIDE	
3	2-890-827-11	DOOR (CD)	
4	2-898-295-01	PANEL (L), SIDE	

Ref. No.	Part No.	Description	Remark
FAN001	1-787-319-12	FAN, DC	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-247-14	SCREW +KTP 3X10 TYPE2 NON-SLIT	

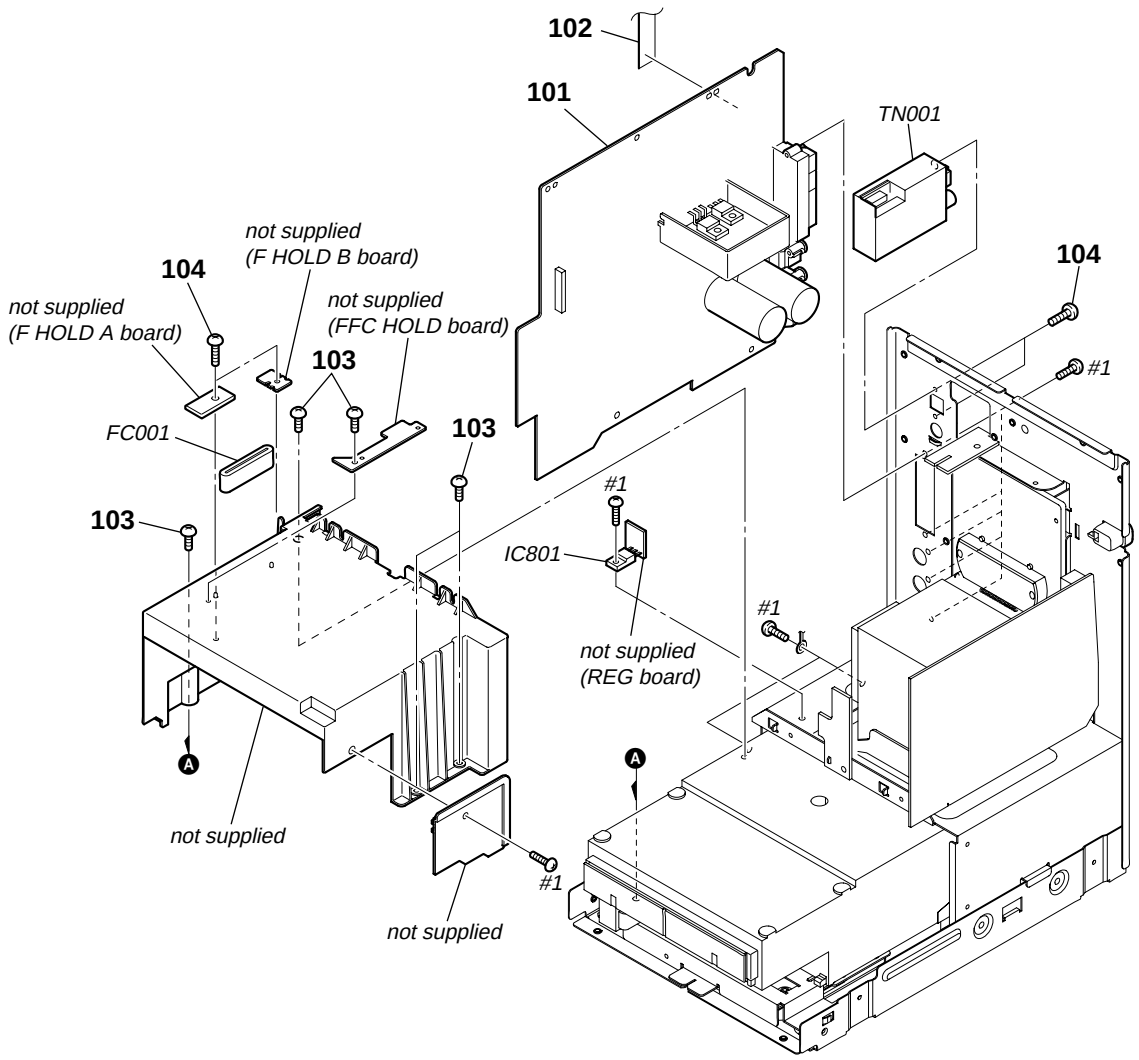
8-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	2-890-823-11	BUTTON (DSGX)	
52	4-951-620-01	SCREW (2.6X8), +BVTP	
53	2-890-821-01	BUTTON (DISC)	
54	2-890-820-01	BUTTON (EJECT)	
55	2-665-175-01	SHEET (REFLECTOR)	
56	4-238-628-03	KNOB (MIC)	
57	4-225-252-01	CUSHION (FOOT)	
58	2-890-826-01	KNOB (VOL)	
59	2-890-817-61	WINDOW (GNZ333D)	
59	2-890-817-71	WINDOW (GNZ444D)	
60	X-2177-501-1	PANEL ASSY, FRONT	

Ref. No.	Part No.	Description	Remark
61	X-2177-496-1	BUTTON (POWER) ASSY	
62	2-890-818-11	BUTTON (FUNCTION)	
63	2-890-819-11	BUTTON (TUNING)	
64	1-831-755-21	CABLE, FLEXIBLE FLAT (5 CORE)	
65	1-828-895-51	WIRE (FLAT TYPE) (15 CORE)	
66	A-1223-656-A	PANEL BOARD, COMPLETE	
67	2-649-179-01	SHEET (LCD)	
68	2-649-178-01	PLATE, LIGHT GUIDE	
69	3-217-568-01	SHEET (MIC)	
ND301	1-519-933-11	DISPLAY PANEL, LIQUID CRYSTAL	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	

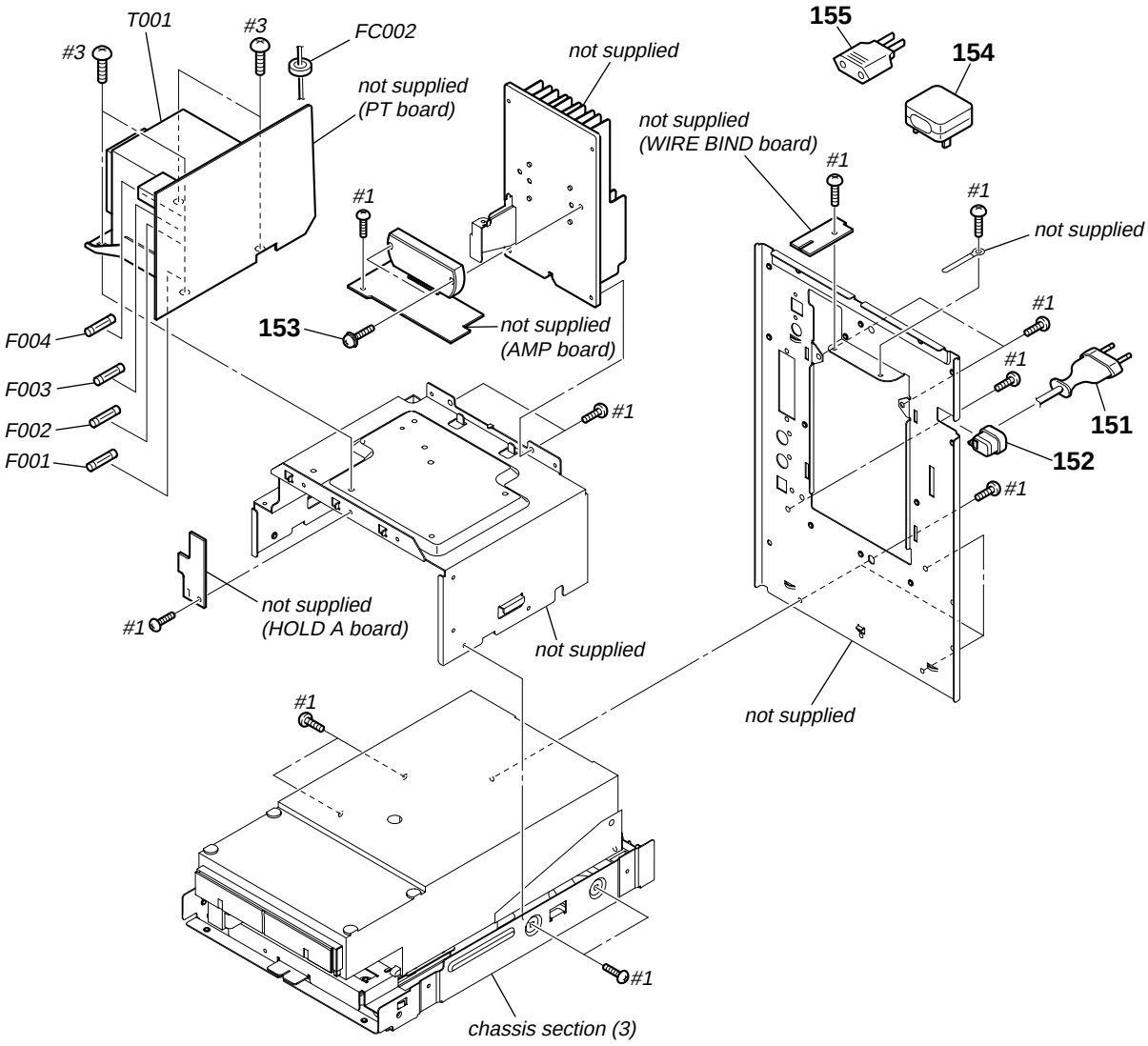
8-3. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
101	A-1223-667-A	MAIN BOARD, COMPLETE (GNZ333D:EA)	
101	A-1223-668-A	MAIN BOARD, COMPLETE (GNZ333D:PH,SP,TH)	
101	A-1223-669-A	MAIN BOARD, COMPLETE (GNZ333D:E3,E15)	
101	A-1223-670-A	MAIN BOARD, COMPLETE (GNZ333D:E12)	
101	A-1223-671-A	MAIN BOARD, COMPLETE (GNZ333D:E13)	
101	A-1223-672-A	MAIN BOARD, COMPLETE (GNZ444D)	
102	1-831-769-21	CABLE, FLEXIBLE FLAT (9 CORE)	

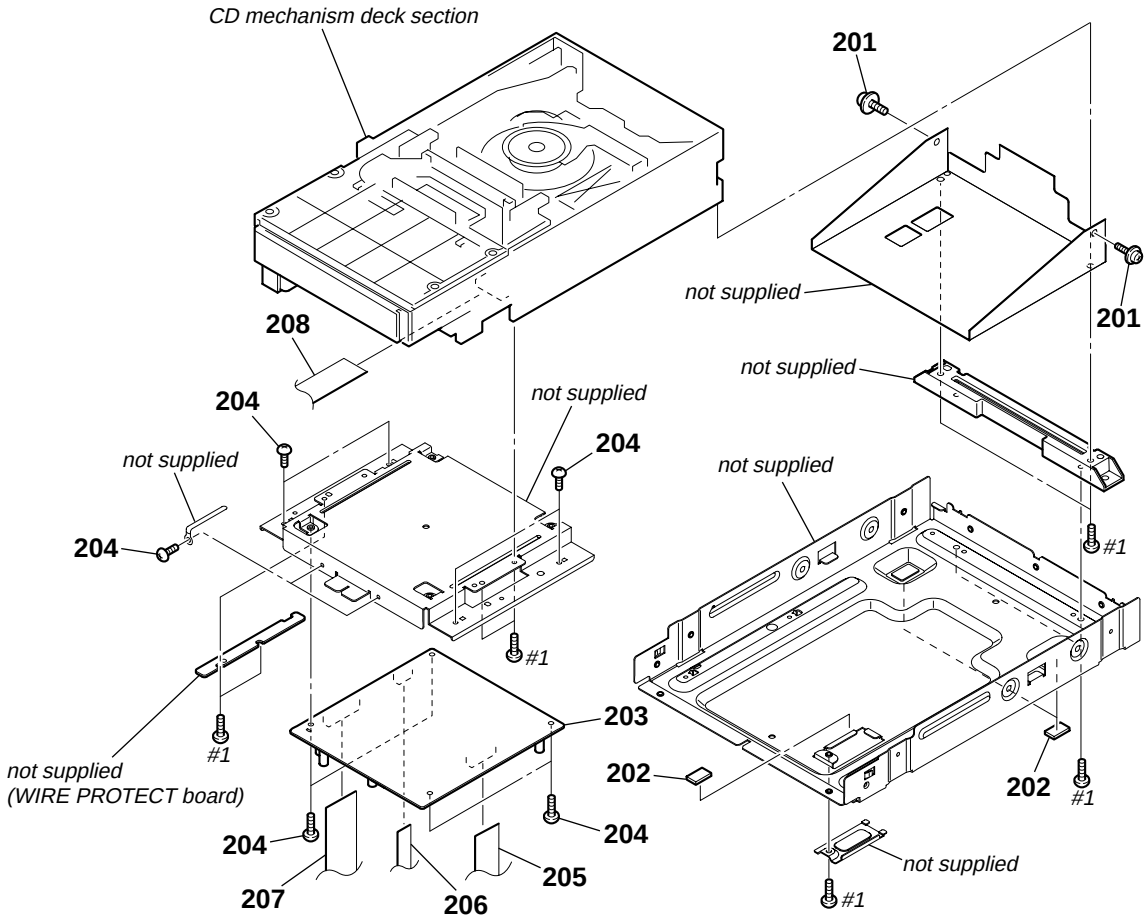
Ref. No.	Part No.	Description	Remark
103	3-077-331-01	+BV 3 (3-CR)	
104	4-951-620-01	SCREW (2.6X8), +BVTP	
FC001	1-400-990-11	CORE, FERRITE	
IC801	6-703-550-01	IC TA7809LS	
TN001	1-693-727-11	TUNER (FM/AM) (ANTENNA)	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	

8-4. REAR PANEL SECTION



Ref. No.	Part No.	Description	Remark
⚠151	1-830-384-11	CORD, POWER (EXCEPT EA,TH)	
⚠151	1-830-891-11	CORD, POWER (EA)	
⚠151	1-834-288-11	CORD, POWER (TH)	
152	3-703-244-00	BUSHING (2104), CORD (EXCEPT TH)	
152	4-916-783-01	BUSHING, CORD	
153	3-905-609-31	SCREW (TRANSISTOR)	
⚠154	1-770-019-61	ADAPTOR, CONVERSION PLUG (EA)	
⚠155	1-569-008-22	ADAPTOR, CONVERSION 2P (E3,E15,EA,PH,SP)	
⚠F001	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG) (T8AL/250V)	
⚠F002	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG) (T8AL/250V)	
⚠F003	1-532-464-33	FUSE (T2.5AL/250V)	
⚠F004	1-532-502-33	FUSE (T1.25AL/250V)	
FC002	1-500-868-11	CORE, FERRITE	
⚠T001	1-445-127-11	TRANSFORMER, POWER (MAIN) (EXCEPT EA)	
⚠T001	1-445-198-11	TRANSFORMER, POWER (MAIN) (EA)	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-685-880-09	SCREW +BVTT 4X6 (S)	

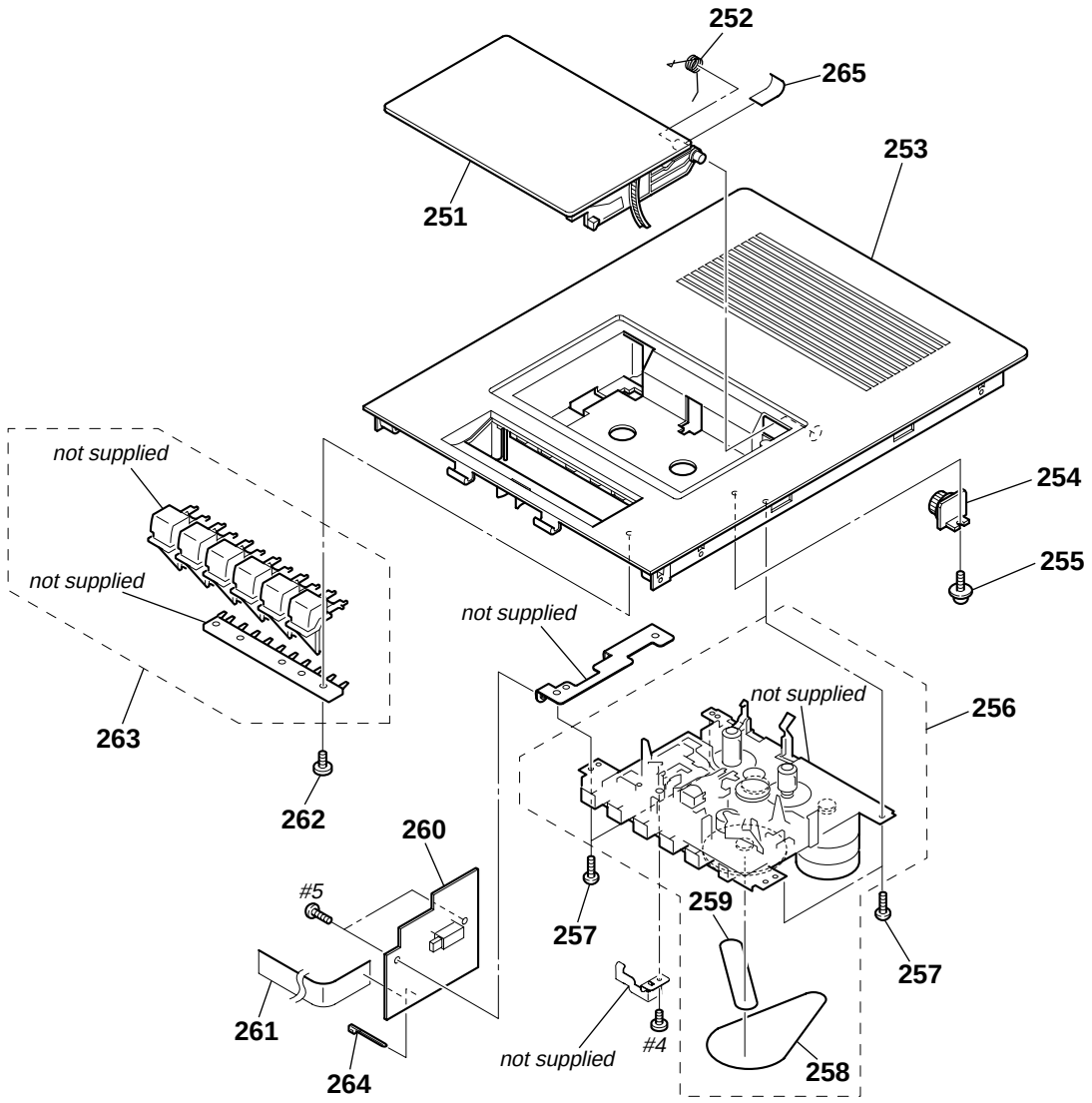
8-5. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
201	4-985-672-01	SCREW (+PTPWHM 2.6), FLOATING	
202	4-225-252-01	CUSHION (FOOT)	
203	A-1251-060-A	DMB16 BOARD, COMPLETE (PH,SP,TH)	
203	A-1251-061-A	DMB16 BOARD, COMPLETE (E3,E15,EA)	
203	A-1251-062-A	DMB16 BOARD, COMPLETE (E12)	
203	A-1251-063-A	DMB16 BOARD, COMPLETE (E13)	

Ref. No.	Part No.	Description	Remark
204	3-077-331-21	+BV 3 (3-CR)	
205	1-834-269-21	CABLE, FLEXIBLE FLAT (13 CORE)	
206	1-828-290-51	WIRE (FLAT TYPE) (5 CORE)	
207	1-828-364-51	WIRE (FLAT TYPE) (19 CORE)	
208	1-828-976-51	WIRE (FLAT TYPE) (13 CORE)	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	

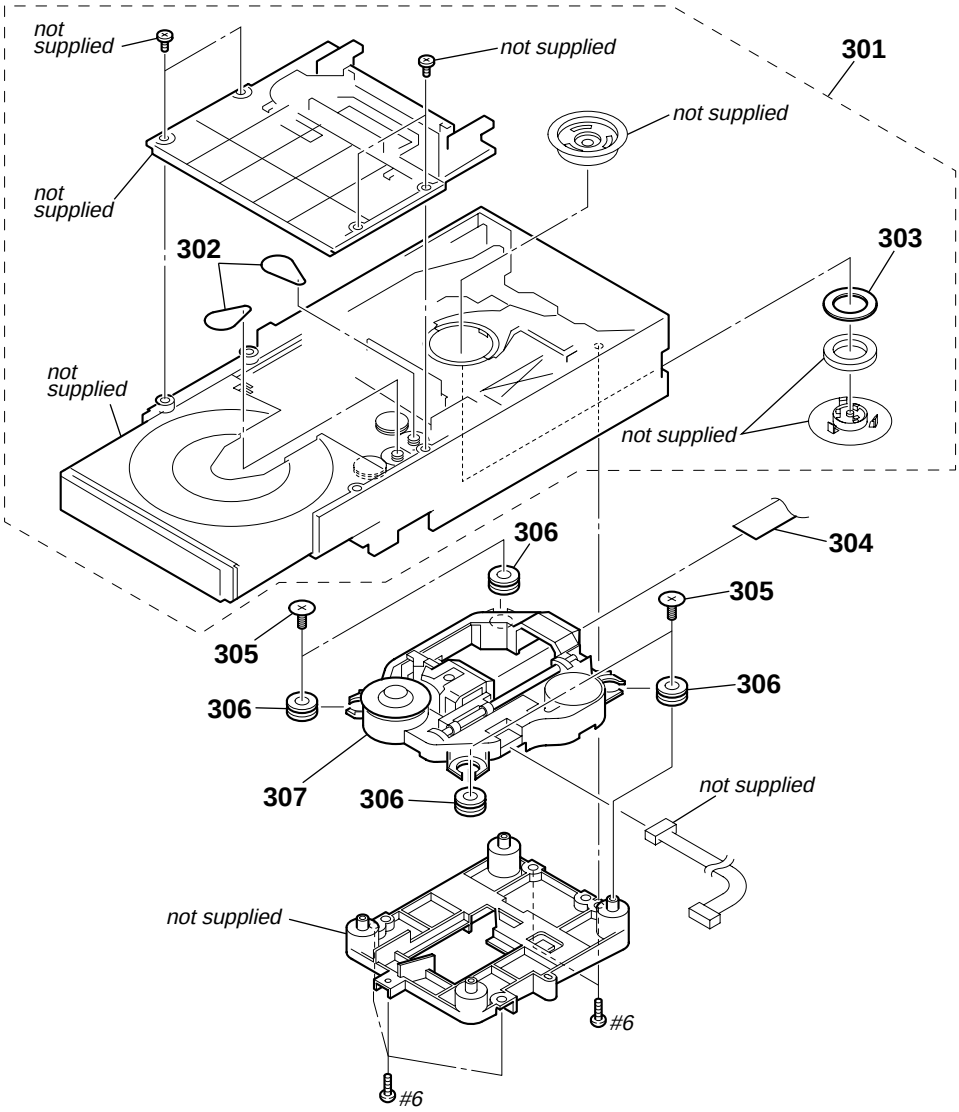
8-6. TOP PANEL SECTION



Ref. No.	Part No.	Description	Remark
251	2-649-131-21	BOX, CASSETTE	
252	2-649-152-02	SPRING (CASS)	
253	2-649-128-71	PANEL, TOP	
254	3-047-468-01	DAMPER	
255	3-921-725-01	SCREW (2.6X10), +PWH	
256	1-797-575-11	DECK, MECHANICAL	
257	4-951-620-01	SCREW (2.6X8), +BVTP	
258	2-688-622-01	BELT (MAIN)	
259	2-688-621-01	BELT (R/F)	

Ref. No.	Part No.	Description	Remark
260	A-1223-698-A	DECK BOARD, COMPLETE	
261	1-833-801-21	CABLE, FLEXIBLE FLAT (9 CORE)	
262	3-252-827-01	SCREW (B 2.6), (+) BV TAPPING	
263	2-649-132-21	BUTTON (CASS)	
264	3-701-748-00	CLAMP	
265	3-917-753-41	CUSHION (SP)	
#4	7-685-850-04	SCREW +BVTT 2X3 (S)	
#5	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	

8-7. DVD MECHANISM DECK SECTION



Ref. No.	Part No.	Description	Remark
301	1-797-193-51	MECHANICAL, CD	
302	2-632-062-11	BELT (DLM3A)	
303	4-251-923-01	YOKE (310)	
304	1-828-772-51	WIRE (FLAT TYPE) (24 CORE)	
305	3-087-599-01	SCREW, INSULATOR	
306	2-634-618-01	INSULATOR	
⚠307	8-820-322-04	OPTICAL PICK-UP (KHM313CAB/C2RP)	
#6	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	

SECTION 9
ELECTRICAL PARTS LIST

AMP

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

- Abbreviation
  E3 : 240 V AC area in E model
  E12 : 220-240 V AC area in E model
  E13 : Russian model
  E15 : Iran model
  EA : Saudi Arabia model
  PH : Philippine model
  SP : Singapore model
  TH : Thai model

Ref. No.	Part No.	Description			Remark
		AMP BOARD			
		**********			
		< CAPACITOR >			
C753	1-126-960-11	ELECT	1uF	20%	50V
C754	1-126-960-11	ELECT	1uF	20%	50V
C755	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C756	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C757	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C758	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C759	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C760	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C761	1-126-947-11	ELECT	47uF	20%	35V
C762	1-126-947-11	ELECT	47uF	20%	35V
C763	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C764	1-126-933-11	ELECT	100uF	20%	16V
C765	1-128-582-11	ELECT	10uF	20%	100V
C768	1-128-582-11	ELECT	10uF	20%	100V
C771	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C772	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C773	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C774	1-100-597-11	CERAMIC CHIP	0.1uF	10%	25V
C775	1-128-582-11	ELECT	10uF	20%	100V
C776	1-128-582-11	ELECT	10uF	20%	100V
C777	1-126-963-11	ELECT	4.7uF	20%	50V
C791	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
		< CONNECTOR >			
CN751	1-819-138-11	PIN, CONNECTOR 10P			
		< DIODE >			
D751	6-500-335-01	DIODE MC2838-T112-1			
D752	8-719-991-33	DIODE 1SS133T-77			
D753	6-501-167-01	DIODE UDZW-TE17-5.1B			
		< IC >			
IC751	6-704-107-11	IC STK403-100-M-E			
		< TRANSISTOR >			
Q751	8-729-600-22	TRANSISTOR 2SA1235-F			
Q752	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q753	6-551-270-01	TRANSISTOR 2SA2026			
Q754	6-551-270-01	TRANSISTOR 2SA2026			

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R751	1-216-821-11	METAL CHIP	1K	5%	1/10W
R752	1-216-821-11	METAL CHIP	1K	5%	1/10W
R755	1-216-841-11	METAL CHIP	47K	5%	1/10W
R756	1-216-841-11	METAL CHIP	47K	5%	1/10W
R757	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R758	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R759	1-216-864-11	SHORT CHIP	0		
R760	1-216-864-11	SHORT CHIP	0		
R761	1-216-821-11	METAL CHIP	1K	5%	1/10W
R762	1-216-805-11	METAL CHIP	47	5%	1/10W
R763	1-216-805-11	METAL CHIP	47	5%	1/10W
R764	1-216-805-11	METAL CHIP	47	5%	1/10W
R765	1-216-805-11	METAL CHIP	47	5%	1/10W
R766	1-216-833-11	METAL CHIP	10K	5%	1/10W
R767	1-216-816-11	METAL CHIP	390	5%	1/10W
R768	1-216-845-11	METAL CHIP	100K	5%	1/10W
R769	1-216-833-11	METAL CHIP	10K	5%	1/10W
R770	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R771	1-216-833-11	METAL CHIP	10K	5%	1/10W
R772	1-216-833-11	METAL CHIP	10K	5%	1/10W
⚠R773	1-245-545-11	METAL OXIDE	0.22	5%	3W F
⚠R774	1-245-545-11	METAL OXIDE	0.22	5%	3W F
R775	1-216-813-11	METAL CHIP	220	5%	1/10W
R776	1-216-813-11	METAL CHIP	220	5%	1/10W
R777	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R778	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R781	1-216-833-11	METAL CHIP	10K	5%	1/10W
R782	1-216-833-11	METAL CHIP	10K	5%	1/10W
R783	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R784	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R785	1-216-833-11	METAL CHIP	10K	5%	1/10W
R786	1-216-833-11	METAL CHIP	10K	5%	1/10W
R787	1-216-841-11	METAL CHIP	47K	5%	1/10W
R788	1-216-841-11	METAL CHIP	47K	5%	1/10W
R791	1-216-805-11	METAL CHIP	47	5%	1/10W
R792	1-216-805-11	METAL CHIP	47	5%	1/10W
R793	1-216-805-11	METAL CHIP	47	5%	1/10W
R794	1-216-805-11	METAL CHIP	47	5%	1/10W
R795	1-216-813-11	METAL CHIP	220	5%	1/10W
R796	1-216-853-11	METAL CHIP	470K	5%	1/10W
		< THERMISTOR >			
TH751	1-805-217-21	THERMISTOR (1012)			

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DECK

Ref. No.	Part No.	Description			Remark
	A-1223-698-A	DECK BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C501	1-126-933-11	ELECT	100uF	20%	16V
C502	1-126-933-11	ELECT	100uF	20%	16V
C503	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C504	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C505	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C506	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C509	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C510	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C511	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C512	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C513	1-126-960-11	ELECT	1uF	20%	50V
C514	1-126-960-11	ELECT	1uF	20%	50V
C515	1-104-662-11	ELECT	22uF	20%	25V
C516	1-104-662-11	ELECT	22uF	20%	25V
C517	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C519	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C520	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C521	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C522	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C523	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C524	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C525	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C526	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C527	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C528	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C529	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C530	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C531	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C532	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C533	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C534	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C535	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C536	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C537	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C538	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C539	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C540	1-137-391-11	MYLAR	0.0047uF	5%	100V
C541	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C542	1-126-965-11	ELECT	22uF	20%	50V
C543	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C545	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C546	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CN501	1-815-449-11	PIN, CONNECTOR (PWB) 8P			
		< GROUND TERMINAL >			
ET501	1-537-771-21	TERMINAL BOARD, GROUND			
		< IC >			
IC501	8-759-100-96	IC uPC4558G2			
IC502	8-759-100-96	IC uPC4558G2			

Ref. No.	Part No.	Description			Remark
		< JUMPER RESISTOR >			
JR501	1-216-864-11	SHORT CHIP	0		
JR502	1-216-864-11	SHORT CHIP	0		
JR503	1-216-864-11	SHORT CHIP	0		
		< TRANSFORMER >			
L501	1-456-094-11	TRANSFORMER, BIAS OSCILLATION			
		< TRANSISTOR >			
Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q502	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		< RESISTOR >			
R501	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R502	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R503	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R504	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R505	1-216-835-11	METAL CHIP	15K	5%	1/10W
R506	1-216-835-11	METAL CHIP	15K	5%	1/10W
R507	1-216-851-11	METAL CHIP	330K	5%	1/10W
R508	1-216-851-11	METAL CHIP	330K	5%	1/10W
R509	1-216-811-11	METAL CHIP	150	5%	1/10W
R510	1-216-811-11	METAL CHIP	150	5%	1/10W
R511	1-216-845-11	METAL CHIP	100K	5%	1/10W
R512	1-216-845-11	METAL CHIP	100K	5%	1/10W
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-845-11	METAL CHIP	100K	5%	1/10W
R515	1-216-864-11	SHORT CHIP	0		
R516	1-216-864-11	SHORT CHIP	0		
R517	1-216-821-11	METAL CHIP	1K	5%	1/10W
R518	1-216-821-11	METAL CHIP	1K	5%	1/10W
R519	1-216-841-11	METAL CHIP	47K	5%	1/10W
R520	1-216-841-11	METAL CHIP	47K	5%	1/10W
R521	1-216-841-11	METAL CHIP	47K	5%	1/10W
R522	1-216-841-11	METAL CHIP	47K	5%	1/10W
R523	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R524	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R525	1-216-851-11	METAL CHIP	330K	5%	1/10W
R526	1-216-851-11	METAL CHIP	330K	5%	1/10W
R527	1-216-851-11	METAL CHIP	330K	5%	1/10W
R528	1-216-851-11	METAL CHIP	330K	5%	1/10W
R529	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R530	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R531	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R532	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R533	1-216-837-11	METAL CHIP	22K	5%	1/10W
R534	1-216-835-11	METAL CHIP	15K	5%	1/10W
R535	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R536	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R537	1-216-833-11	METAL CHIP	10K	5%	1/10W
R538	1-216-833-11	METAL CHIP	10K	5%	1/10W
R539	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R540	1-216-805-11	METAL CHIP	47	5%	1/10W
R541	1-216-805-11	METAL CHIP	47	5%	1/10W
R543	1-216-809-11	METAL CHIP	100	5%	1/10W
R544	1-216-809-11	METAL CHIP	100	5%	1/10W
R545	1-216-817-11	METAL CHIP	470	5%	1/10W

Ref. No.	Part No.	Description			Remark
R546	1-216-817-11	METAL CHIP	470	5%	1/10W
		< SWITCH >			
S501	1-762-369-11	SWITCH, SLIDE (REC/PB)			
**********					
	A-1251-060-A	DMB16 BOARD, COMPLETE (PH,SP,TH)			
	A-1251-061-A	DMB16 BOARD, COMPLETE (E3,E15,EA)			
	A-1251-062-A	DMB16 BOARD, COMPLETE (E12)			
	A-1251-063-A	DMB16 BOARD, COMPLETE (E13)			
		**********			
		< CAPACITOR >			
C101	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C102	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C105	1-126-786-11	ELECT	47uF	20%	16V
C106	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C108	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C109	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C112	1-126-786-11	ELECT	47uF	20%	16V
C113	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C114	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C115	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C116	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C117	1-126-791-11	ELECT	10uF	20%	35V
C118	1-126-791-11	ELECT	10uF	20%	35V
C119	1-126-791-11	ELECT	10uF	20%	35V
C120	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C121	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C122	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C123	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C124	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C125	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C126	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C127	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C128	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C129	1-126-791-11	ELECT	10uF	20%	35V
C130	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C131	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C132	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C133	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C135	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C136	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C137	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C138	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C139	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C140	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C144	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C146	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C147	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C148	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C149	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C150	1-126-791-11	ELECT	10uF	20%	35V
C151	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C152	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C153	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C154	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C155	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description			Remark
C156	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C158	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C159	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C160	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C161	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C162	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C163	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C164	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C167	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C170	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C171	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C172	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C173	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C174	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C175	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C176	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C177	1-126-786-11	ELECT	47uF	20%	16V
C178	1-126-786-11	ELECT	47uF	20%	16V
C179	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C180	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C181	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C182	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C184	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C187	1-126-786-11	ELECT	47uF	20%	16V
C188	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C189	1-128-934-11	CERAMIC CHIP	0.33uF	20%	10V
C190	1-126-786-11	ELECT	47uF	20%	16V
C191	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C192	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C193	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C195	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C196	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C203	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C205	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C206	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C208	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C209	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C210	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C211	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C212	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C213	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C214	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C215	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C217	1-126-786-11	ELECT	47uF	20%	16V
C218	1-126-791-11	ELECT	10uF	20%	35V
C219	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C220	1-126-791-11	ELECT	10uF	20%	35V
C221	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C222	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C224	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C233	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C301	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C302	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C305	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C306	1-126-382-11	ELECT	100uF	20%	16V
C307	1-126-382-11	ELECT	100uF	20%	16V
C308	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C402	1-126-786-11	ELECT	47uF	20%	16V

Ref. No.	Part No.	Description			Remark
C403	1-126-786-11	ELECT	47uF	20%	16V
C3701	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3702	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3707	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3708	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3711	1-162-977-11	CERAMIC CHIP	0.0018uF	10%	50V
C3712	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3713	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C3714	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C3721	1-162-977-11	CERAMIC CHIP	0.0018uF	10%	50V
C3722	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3723	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C3724	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C3771	1-162-977-11	CERAMIC CHIP	0.0018uF	10%	50V
C3772	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3773	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C3774	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C3781	1-162-977-11	CERAMIC CHIP	0.0018uF	10%	50V
C3782	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3783	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C3784	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C3801	1-126-382-11	ELECT	100uF	20%	16V
C3802	1-117-370-11	CERAMIC CHIP	10uF		10V
C3803	1-126-382-11	ELECT	100uF	20%	16V
C3804	1-126-786-11	ELECT	47uF	20%	16V
C3805	1-126-786-11	ELECT	47uF	20%	16V
		< CONNECTOR >			
CN101	1-815-763-32	CONNECTOR, FFC/FPC 24P			
* CN105	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN109	1-779-281-11	CONNECTOR, FFC (LIF(NON-ZIF)) 13P			
* CN201	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN301	1-779-273-11	CONNECTOR, FFC (LIF(NON-ZIF)) 5P			
CN313	1-779-287-11	CONNECTOR, FFC (LIF(NON-ZIF)) 19P			
CN401	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
		< DIODE >			
D1001	8-719-058-24	DIODE RB501V-40TE-17			
D3501	6-501-579-01	DIODE MC2837			
		< GROUND TERMINAL >			
ET001	1-537-771-21	TERMINAL BOARD, GROUND			
ET002	1-537-771-21	TERMINAL BOARD, GROUND			
ET003	1-537-771-21	TERMINAL BOARD, GROUND			
		< FERRITE BEAD >			
FB111	1-414-226-21	INDUCTOR, FERRITE BEAD			
FB112	1-414-226-21	INDUCTOR, FERRITE BEAD			
FB113	1-414-226-21	INDUCTOR, FERRITE BEAD			
FB114	1-414-226-21	INDUCTOR, FERRITE BEAD			
FB115	1-400-244-11	BEAD, FERRITE (CHIP) (1608)			
FB401	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB402	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB403	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB404	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB405	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB406	1-469-324-21	FERRITE, EMI (SMD) (2012)			

Ref. No.	Part No.	Description			Remark
FB1502	1-400-244-11	BEAD, FERRITE (CHIP) (1608)			
FB3501	1-400-244-11	BEAD, FERRITE (CHIP) (1608)			
		< FILTER >			
FL101	1-234-177-21	FILTER, CHIP EMI			
FL104	1-234-177-21	FILTER, CHIP EMI			
FL105	1-234-177-21	FILTER, CHIP EMI			
FL106	1-234-177-21	FILTER, CHIP EMI			
FL107	1-234-177-21	FILTER, CHIP EMI			
FL108	1-234-177-21	FILTER, CHIP EMI			
FL401	1-234-177-21	FILTER, CHIP EMI			
FL402	1-233-893-21	FILTER, CHIP EMI			
FL403	1-234-177-21	FILTER, CHIP EMI			
		< IC >			
IC101	6-807-235-01	IC MX29LV320CBTC70-CBA4-0701CE			(E3,E12,E13,E15,EA)
IC101	6-807-236-01	IC MX29LV320CBTC70-CBA4-0701GA			(PH,SP,TH)
IC102	6-707-535-01	IC CXD9849R			
IC103	not supplied	IC BR24L64F-WE2			
IC104	6-709-370-01	IC A2V64S40CTP-G75			
IC105	6-702-302-01	IC TK11133CSCL-G			
IC106	6-709-213-01	IC NJM2387ADL3(TE2)			
IC107	6-702-302-01	IC TK11133CSCL-G			
IC201	6-704-524-01	IC FAN8036L			
IC301	6-704-222-01	IC AK4358VQ-L			
IC3711	8-759-359-49	IC NJM3414AV(TE2)			
IC3771	8-759-359-49	IC NJM3414AV(TE2)			
		< TRANSISTOR >			
Q101	6-550-008-01	FET UM6K1N-TN			
Q102	6-550-653-01	TRANSISTOR QST8TR			
Q103	8-729-027-52	TRANSISTOR DTC124EKA-T146			
Q3801	8-729-230-49	TRANSISTOR 2SC2712-YG			
		< RESISTOR >			
R101	1-216-809-11	METAL CHIP	100	5%	1/10W
R104	1-216-864-11	SHORT CHIP	0		
R105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R106	1-216-833-11	METAL CHIP	10K	5%	1/10W
R107	1-216-833-11	METAL CHIP	10K	5%	1/10W
R108	1-216-857-11	METAL CHIP	1M	5%	1/10W
R109	1-216-864-11	SHORT CHIP	0		
R110	1-216-841-11	METAL CHIP	47K	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W
R112	1-211-977-11	METAL CHIP	22	0.5%	1/10W
R113	1-211-977-11	METAL CHIP	22	0.5%	1/10W
R114	1-216-845-11	METAL CHIP	100K	5%	1/10W
R115	1-211-977-11	METAL CHIP	22	0.5%	1/10W
R116	1-216-821-11	METAL CHIP	1K	5%	1/10W
R117	1-216-841-11	METAL CHIP	47K	5%	1/10W
R118	1-216-801-11	METAL CHIP	22	5%	1/10W
R120	1-216-801-11	METAL CHIP	22	5%	1/10W
R121	1-216-801-11	METAL CHIP	22	5%	1/10W
R123	1-216-864-11	SHORT CHIP	0		
R124	1-216-841-11	METAL CHIP	47K	5%	1/10W
R126	1-216-864-11	SHORT CHIP	0		

When IC103 on the DMB16 board are damaged, exchange the new DMB16 board for the DMB16 board which IC damaged.

Ref. No.	Part No.	Description			Remark
R127	1-216-809-11	METAL CHIP	100	5%	1/10W
R136	1-216-835-11	METAL CHIP	15K	5%	1/10W
R138	1-216-845-11	METAL CHIP	100K	5%	1/10W
R141	1-218-916-11	METAL CHIP	750K	0.5%	1/10W
R142	1-216-845-11	METAL CHIP	100K	5%	1/10W
R143	1-216-809-11	METAL CHIP	100	5%	1/10W
R146	1-216-805-11	METAL CHIP	47	5%	1/10W
R151	1-216-805-11	METAL CHIP	47	5%	1/10W
R152	1-216-864-11	SHORT CHIP	0		
R153	1-216-805-11	METAL CHIP	47	5%	1/10W
R155	1-216-805-11	METAL CHIP	47	5%	1/10W
R160	1-216-805-11	METAL CHIP	47	5%	1/10W
R161	1-216-809-11	METAL CHIP	100	5%	1/10W
R164	1-216-809-11	METAL CHIP	100	5%	1/10W
R169	1-216-833-11	METAL CHIP	10K	5%	1/10W
R187	1-216-864-11	SHORT CHIP	0		
R189	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R190	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R191	1-216-821-11	METAL CHIP	1K	5%	1/10W
R192	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R193	1-216-821-11	METAL CHIP	1K	5%	1/10W
R195	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R196	1-216-864-11	SHORT CHIP	0		
R197	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R204	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R205	1-216-833-11	METAL CHIP	10K	5%	1/10W
R206	1-216-833-11	METAL CHIP	10K	5%	1/10W
R207	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R208	1-216-839-11	METAL CHIP	33K	5%	1/10W
R209	1-216-839-11	METAL CHIP	33K	5%	1/10W
R210	1-216-841-11	METAL CHIP	47K	5%	1/10W
R212	1-216-833-11	METAL CHIP	10K	5%	1/10W
R213	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R214	1-216-835-11	METAL CHIP	15K	5%	1/10W
R215	1-216-834-11	METAL CHIP	12K	5%	1/10W
R216	1-216-834-11	METAL CHIP	12K	5%	1/10W
R219	1-216-838-11	METAL CHIP	27K	5%	1/10W
R220	1-216-833-11	METAL CHIP	10K	5%	1/10W
R221	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R223	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R224	1-216-833-11	METAL CHIP	10K	5%	1/10W
R225	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R226	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R230	1-218-893-11	METAL CHIP	82K	0.5%	1/10W
R231	1-218-875-11	METAL CHIP	15K	0.5%	1/10W
R232	1-218-877-11	METAL CHIP	18K	0.5%	1/10W
R233	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R234	1-216-833-11	METAL CHIP	10K	5%	1/10W
R246	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R247	1-216-821-11	METAL CHIP	1K	5%	1/10W
R314	1-216-809-11	METAL CHIP	100	5%	1/10W
R319	1-216-864-11	SHORT CHIP	0		
R1101	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1102	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R1103	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1104	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1109	1-216-864-11	SHORT CHIP	0		
R1110	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R1123	1-216-864-11	SHORT CHIP	0		
R1124	1-216-864-11	SHORT CHIP	0		
R1125	1-216-864-11	SHORT CHIP	0		
R1129	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1133	1-216-864-11	SHORT CHIP	0		
R1134	1-216-864-11	SHORT CHIP	0		
R1138	1-216-817-11	METAL CHIP	470	5%	1/10W
R1139	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1150	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1151	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1152	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1168	1-216-815-11	METAL CHIP	330	5%	1/10W
R1171	1-216-809-11	METAL CHIP	100	5%	1/10W
R1502	1-216-864-11	SHORT CHIP	0		
R1504	1-400-244-11	BEAD, FERRITE (CHIP) (1608)			
R1524	1-216-809-11	METAL CHIP	100	5%	1/10W
R1530	1-216-805-11	METAL CHIP	47	5%	1/10W
R1531	1-216-805-11	METAL CHIP	47	5%	1/10W
R1540	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1542	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1543	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1544	1-216-864-11	SHORT CHIP	0		
R1546	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1547	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1548	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1549	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1550	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1551	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1552	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1553	1-216-864-11	SHORT CHIP	0		
R1554	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1557	1-216-809-11	METAL CHIP	100	5%	1/10W
R1559	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1561	1-216-864-11	SHORT CHIP	0		
R2504	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3502	1-216-864-11	SHORT CHIP	0		
R3503	1-216-864-11	SHORT CHIP	0		
R3506	1-216-864-11	SHORT CHIP	0		
R3507	1-216-809-11	METAL CHIP	100	5%	1/10W
R3508	1-216-809-11	METAL CHIP	100	5%	1/10W
R3651	1-216-864-11	SHORT CHIP	0		
R3652	1-216-864-11	SHORT CHIP	0		
R3653	1-216-864-11	SHORT CHIP	0		
R3711	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3712	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3713	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R3714	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R3715	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3716	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3717	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3718	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3719	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3721	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3722	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3723	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R3724	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R3725	1-216-829-11	METAL CHIP	4.7K	5%	1/10W

DMB16 **JACK** **KEY CD** **KEY LEFT** **KEY RIGHT**

Ref. No.	Part No.	Description			Remark
R3726	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3727	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3728	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3729	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3771	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3772	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3773	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R3774	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R3775	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3776	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3777	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3778	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3779	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3781	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3782	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3783	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R3784	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R3785	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3786	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3787	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3788	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3789	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3801	1-216-864-11	SHORT CHIP	0		
R3802	1-216-864-11	SHORT CHIP	0		
R3803	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3804	1-216-836-11	METAL CHIP	18K	5%	1/10W
R3805	1-216-821-11	METAL CHIP	1K	5%	1/10W
R4704	1-216-864-11	SHORT CHIP	0		
R4705	1-216-864-11	SHORT CHIP	0		
R4706	1-216-864-11	SHORT CHIP	0		
R5006	1-216-864-11	SHORT CHIP	0		
R5016	1-216-864-11	SHORT CHIP	0 (E3,E12,E13,E15,EA)		
R5017	1-216-864-11	SHORT CHIP	0 (PH,SP,TH)		
		< NETWORK RESISTOR >			
RB103	1-234-371-21	RES, NETWORK 47X4 (1005)			
RB104	1-234-371-21	RES, NETWORK 47X4 (1005)			
RB105	1-234-370-21	RES, NETWORK 22X4 (1005)			
RB106	1-234-370-21	RES, NETWORK 22X4 (1005)			
RB107	1-234-371-21	RES, NETWORK 47X4 (1005)			
RB108	1-234-372-11	RES, NETWORK 100X4 (1005)			
RB111	1-234-371-21	RES, NETWORK 47X4 (1005)			
RB112	1-234-370-21	RES, NETWORK 22X4 (1005)			
RB113	1-234-370-21	RES, NETWORK 22X4 (1005)			
		< VIBRATOR >			
X101	1-813-539-11	QUARTZ CRYSTAL UNIT (27MHz)			
**********					
		JACK BOARD			
		**********			
		< CAPACITOR >			
C253	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C254	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C256	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C257	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
		< JACK >			
J251	1-566-822-51	JACK (AUDIO IN)			
J252	1-815-629-21	JACK (PHONES)			
**********					
		KEY CD BOARD			
		**********			
		< RESISTOR >			
R352	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R353	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R354	1-216-833-11	METAL CHIP	10K	5%	1/10W
R355	1-216-837-11	METAL CHIP	22K	5%	1/10W
R356	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< SWITCH >			
S353	1-762-875-21	SWITCH, KEYBOARD (DISC 1)			
S354	1-762-875-21	SWITCH, KEYBOARD (DISC 2)			
S355	1-762-875-21	SWITCH, KEYBOARD (DISC 3)			
S356	1-762-875-21	SWITCH, KEYBOARD (⏏)			
S357	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)			
**********					
		KEY LEFT BOARD			
		**********			
		< DIODE >			
D351	6-501-483-01	LED SLR-325VCT31P (STANDBY)			
		< RESISTOR >			
R351	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< SWITCH >			
S351	1-762-875-21	SWITCH, KEYBOARD (I/⏻)			
S352	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)			
**********					
		KEY RIGHT BOARD			
		**********			
		< CONNECTOR >			
CN352	1-815-550-11	PIN, CONNECTOR (PWB) 2P			
		< RESISTOR >			
R357	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R358	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R359	1-216-833-11	METAL CHIP	10K	5%	1/10W
R360	1-216-837-11	METAL CHIP	22K	5%	1/10W
R361	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< SWITCH >			
S358	1-762-875-21	SWITCH, KEYBOARD (FUNCTION +/–)			
S359	1-762-875-21	SWITCH, KEYBOARD (TUNING +)			
S360	1-762-875-21	SWITCH, KEYBOARD (TUNING –)			
S361	1-762-875-21	SWITCH, KEYBOARD (DSGX)			
S362	1-762-875-21	SWITCH, KEYBOARD (EQ)			
**********					

Ref. No.	Part No.	Description			Remark
	A-1223-667-A	MAIN BOARD, COMPLETE (GNZ333D:EA)			
	A-1223-668-A	MAIN BOARD, COMPLETE (GNZ333D:PH,SP,TH)			
	A-1223-669-A	MAIN BOARD, COMPLETE (GNZ333D:E3,E15)			
	A-1223-670-A	MAIN BOARD, COMPLETE (GNZ333D:E12)			
	A-1223-671-A	MAIN BOARD, COMPLETE (GNZ333D:E13)			
	A-1223-672-A	MAIN BOARD, COMPLETE (GNZ444D)			
		**********			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S			
		< CAPACITOR >			
C021	1-126-943-11	ELECT	2200uF	20%	25V
C022	1-128-547-11	ELECT	6800uF	20%	16V
C025	1-135-516-11	ELECT	3300uF	20%	63V
C026	1-135-516-11	ELECT	3300uF	20%	63V
C031	1-126-942-61	ELECT	1000uF	20%	25V
C033	1-100-717-11	CERAMIC CHIP	1uF		16V
C037	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C038	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C039	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C040	1-100-717-11	CERAMIC CHIP	1uF		16V
C045	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C048	1-137-749-11	MYLAR	0.1uF		100V
C049	1-137-749-11	MYLAR	0.1uF		100V
C050	1-126-964-11	ELECT	10uF	20%	50V
C051	1-126-963-11	ELECT	4.7uF	20%	50V
C052	1-126-962-11	ELECT	3.3uF	20%	50V
C053	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C054	1-126-933-11	ELECT	100uF	20%	16V
C055	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C056	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C057	1-126-933-11	ELECT	100uF	20%	16V
C058	1-126-925-11	ELECT	470uF	20%	10V
C059	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C103	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C104	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C105	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C106	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C107	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C108	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C109	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C110	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C111	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C112	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C113	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C114	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C115	1-126-960-11	ELECT	1uF	20%	50V
C116	1-126-960-11	ELECT	1uF	20%	50V
C117	1-126-960-11	ELECT	1uF	20%	50V
C118	1-126-960-11	ELECT	1uF	20%	50V
C119	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C120	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C121	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C122	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C123	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C124	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C125	1-126-960-11	ELECT	1uF	20%	50V
C126	1-126-960-11	ELECT	1uF	20%	50V
C129	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C130	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C131	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C132	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C133	1-126-964-11	ELECT	10uF	20%	50V
C134	1-126-964-11	ELECT	10uF	20%	50V
C135	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C137	1-104-655-11	ELECT	470uF	20%	6.3V
C138	1-104-655-11	ELECT	470uF	20%	6.3V
C139	1-126-964-11	ELECT	10uF	20%	50V
C140	1-126-964-11	ELECT	10uF	20%	50V
C141	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C142	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C143	1-126-960-11	ELECT	1uF	20%	50V
C144	1-126-960-11	ELECT	1uF	20%	50V
C145	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C146	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C149	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C150	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C151	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C152	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C154	1-126-947-11	ELECT	47uF	20%	35V
C155	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C156	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C157	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C158	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C167	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C168	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C169	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C170	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C408	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C414	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C415	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C416	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C425	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C426	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C427	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C428	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C429	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C430	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C431	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C432	1-126-947-11	ELECT	47uF	20%	35V
C451	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C452	1-126-965-11	ELECT	22uF	20%	50V
C453	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C454	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C455	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C461	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C490	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C491	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C492	1-126-964-11	ELECT	10uF	20%	50V
C493	1-126-947-11	ELECT	47uF	20%	35V
C494	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C495	1-126-964-11	ELECT	10uF	20%	50V
C496	1-114-154-11	DOUBLE LAYERS	0.047F		5.5V
C497	1-126-923-11	ELECT	220uF	20%	10V
C551	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C552	1-126-947-11	ELECT	47uF	20%	35V

Ref. No.	Part No.	Description			Remark
C554	1-126-961-11	ELECT	2.2uF	20%	50V
C555	1-126-947-11	ELECT	47uF	20%	35V
C556	1-126-947-11	ELECT	47uF	20%	35V
C557	1-126-947-11	ELECT	47uF	20%	35V
C558	1-126-963-11	ELECT	4.7uF	20%	50V
C559	1-126-961-11	ELECT	2.2uF	20%	50V
C560	1-126-947-11	ELECT	47uF	20%	35V
C561	1-126-933-11	ELECT	100uF	20%	16V
C562	1-164-156-11	CERAMIC CHIP	0.1uF		25V (GNZ444D)
C565	1-126-947-11	ELECT	47uF	20%	35V
C566	1-126-965-11	ELECT	22uF	20%	50V
C567	1-126-964-11	ELECT	10uF	20%	50V
C568	1-126-933-11	ELECT	100uF	20%	16V
C569	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C570	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C571	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C573	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C574	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C575	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C613	1-126-966-11	ELECT	33uF	20%	50V
C620	1-104-658-11	ELECT	100uF	20%	10V
C662	1-100-566-11	CERAMIC CHIP	0.1uF	10%	25V
C674	1-164-156-11	CERAMIC CHIP	0.1uF		25V (GNZ444D)
C677	1-126-947-11	ELECT	47uF	20%	35V
C679	1-126-933-11	ELECT	100uF	20%	16V
C680	1-126-947-11	ELECT	47uF	20%	35V
C681	1-126-947-11	ELECT	47uF	20%	35V
C701	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C703	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C704	1-126-916-11	ELECT	1000uF	20%	6.3V
C705	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C706	1-126-917-11	ELECT	3300uF	20%	6.3V
C707	1-126-960-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
CN101	1-815-556-11	PIN, CONNECTOR (PWB) 8P			
CN102	1-784-731-11	CONNECTOR, FFC 9P			
CN103	1-815-552-11	PIN, CONNECTOR (PWB) 4P			
CN105	1-819-131-11	PIN, CONNECTOR 3P			
CN107	1-815-445-11	PIN, CONNECTOR (PWB) 4P			
CN401	1-815-553-11	PIN, CONNECTOR (PWB) 5P			
CN402	1-784-776-11	CONNECTOR, FFC 15P			
CN403	1-784-774-11	CONNECTOR, FFC 13P			
CN404	1-779-281-11	CONNECTOR, FFC (LIF(NON-ZIF)) 13P			
CN405	1-779-542-21	CONNECTOR, FFC (LIF(NON-ZIF)) 5P			
CN406	1-779-287-11	CONNECTOR, FFC (LIF(NON-ZIF)) 19P			
CN410	1-784-727-11	CONNECTOR, FFC 5P			
		< DIODE >			
D011	8-719-082-57	DIODE D5SBA60F01			
D012	8-719-063-79	DIODE 1N4002B			
D013	8-719-063-79	DIODE 1N4002B			
D014	8-719-063-79	DIODE 1N4002B			
D015	8-719-063-79	DIODE 1N4002B			
D016	8-719-063-79	DIODE 1N4002B			
D017	8-719-063-79	DIODE 1N4002B			

Ref. No.	Part No.	Description	Remark
D018	8-719-063-79	DIODE 1N4002B	
D019	8-719-063-79	DIODE 1N4002B	
D024	8-719-063-79	DIODE 1N4002B	
D027	8-719-063-79	DIODE 1N4002B	
D028	8-719-991-33	DIODE 1SS133T-77	
D029	6-500-335-01	DIODE MC2838-T112-1	
D219	8-719-991-33	DIODE 1SS133T-77	
D401	8-719-991-33	DIODE 1SS133T-77	
D490	8-719-991-33	DIODE 1SS133T-77	
D491	6-501-166-01	DIODE UDZW-TE17-4.7B	
D492	6-500-334-01	DIODE MC2836-T112-1	
D493	6-500-334-01	DIODE MC2836-T112-1	
D551	6-501-579-01	DIODE MC2837	
D552	6-501-579-01	DIODE MC2837	
D553	8-719-991-33	DIODE 1SS133T-77	
D554	8-719-991-33	DIODE 1SS133T-77	
D555	8-719-991-33	DIODE 1SS133T-77	
D556	6-500-335-01	DIODE MC2838-T112-1	
D557	6-501-174-01	DIODE UDZW-TE17-10B	
D558	8-719-991-33	DIODE 1SS133T-77	
D559	6-501-579-01	DIODE MC2837	
D560	8-719-991-33	DIODE 1SS133T-77	
D562	6-501-165-01	DIODE UDZW-TE17-4.3B	
D563	6-501-579-01	DIODE MC2837	
		< FERRITE BEAD >	
FB010	1-469-350-21	INDUCTOR, FERRITE BEAD (2012)	
FB011	1-469-350-21	INDUCTOR, FERRITE BEAD (2012)	
FB012	1-469-350-21	INDUCTOR, FERRITE BEAD (2012)	
FB013	1-469-350-21	INDUCTOR, FERRITE BEAD (2012)	
FB140	1-216-864-11	SHORT CHIP 0	
FB141	1-414-229-11	INDUCTOR, FERRITE BEAD	
FB142	1-216-864-11	SHORT CHIP 0	
FB143	1-414-229-11	INDUCTOR, FERRITE BEAD	
FB144	1-414-229-11	INDUCTOR, FERRITE BEAD	
FB145	1-414-229-11	INDUCTOR, FERRITE BEAD	
FB146	1-414-234-22	INDUCTOR, FERRITE BEAD	
FB147	1-414-229-11	INDUCTOR, FERRITE BEAD	
FB148	1-414-229-11	INDUCTOR, FERRITE BEAD	
FB149	1-414-229-11	INDUCTOR, FERRITE BEAD	
FB410	1-414-229-11	INDUCTOR, FERRITE BEAD	
FB705	1-414-229-11	INDUCTOR, FERRITE BEAD	
		< IC >	
IC012	6-710-643-01	IC BA00BC0WCP-V5E2	
IC013	6-710-642-01	IC SI-3010KFE	
IC014	6-710-643-01	IC BA00BC0WCP-V5E2	
IC015	6-703-547-01	IC TA7805LS	
IC101	6-710-289-01	IC R2S15904SP	
IC102	8-759-100-96	IC uPC4558G2	
IC103	8-759-100-96	IC uPC4558G2	
IC105	8-759-430-37	IC MC14052BDTR2	
IC401	6-808-141-01	IC uPD78F1164GF-GNZDA-GAS-AX	
IC402	8-759-713-61	IC PST3429UL	
IC552	8-759-700-07	IC NJM2903M	
IC553	8-759-100-96	IC uPC4558G2	
IC554	8-759-700-07	IC NJM2903M	
IC555	6-600-465-11	IC TOTX147 (DVD DIGITAL OUT)	

Ref. No.	Part No.	Description	Remark
IC701	6-600-495-01	IC MM1671XNRE	
		< JACK >	
J603	1-774-785-11	JACK, PIN 1P (SUBWOOFER OUT) (GNZ444D)	
J701	1-794-970-11	JACK, PIN 1P (VIDEO OUT)	
		< JUMPER RESISTOR >	
JR102	1-216-864-11	SHORT CHIP 0	
JR103	1-216-864-11	SHORT CHIP 0	
JR104	1-216-864-11	SHORT CHIP 0	
JR105	1-216-864-11	SHORT CHIP 0	
JR106	1-216-864-11	SHORT CHIP 0	
JR107	1-216-864-11	SHORT CHIP 0	
JR108	1-216-864-11	SHORT CHIP 0	
JR109	1-216-864-11	SHORT CHIP 0	
JR110	1-216-864-11	SHORT CHIP 0	
JR111	1-216-864-11	SHORT CHIP 0	
JR112	1-216-864-11	SHORT CHIP 0	
JR113	1-216-864-11	SHORT CHIP 0	
JR114	1-216-864-11	SHORT CHIP 0	
JR115	1-216-864-11	SHORT CHIP 0	
JR116	1-216-864-11	SHORT CHIP 0	
JR117	1-216-864-11	SHORT CHIP 0	
JR118	1-216-864-11	SHORT CHIP 0	
JR119	1-216-864-11	SHORT CHIP 0	
JR120	1-216-864-11	SHORT CHIP 0	
JR121	1-216-864-11	SHORT CHIP 0	
JR123	1-216-864-11	SHORT CHIP 0	
JR124	1-216-864-11	SHORT CHIP 0	
JR125	1-216-864-11	SHORT CHIP 0	
JR126	1-216-864-11	SHORT CHIP 0	
JR127	1-216-864-11	SHORT CHIP 0	
JR128	1-216-864-11	SHORT CHIP 0	
JR129	1-216-864-11	SHORT CHIP 0	
JR130	1-216-864-11	SHORT CHIP 0	
JR131	1-216-864-11	SHORT CHIP 0	
JR133	1-216-864-11	SHORT CHIP 0	
JR134	1-216-864-11	SHORT CHIP 0	
JR135	1-216-864-11	SHORT CHIP 0	
JR136	1-216-864-11	SHORT CHIP 0	
JR137	1-216-864-11	SHORT CHIP 0	
JR138	1-216-864-11	SHORT CHIP 0	
JR401	1-216-864-11	SHORT CHIP 0	
		< COIL >	
L101	1-456-107-11	COIL, AIR-CORE	
L102	1-456-107-11	COIL, AIR-CORE	
		< TRANSISTOR >	
Q011	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF	
Q012	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q013	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q014	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q015	8-729-600-22	TRANSISTOR 2SA1235-F	
Q016	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q017	8-729-038-28	TRANSISTOR RT1N441C-TP-1	
Q018	8-729-038-28	TRANSISTOR RT1N441C-TP-1	

Ref. No.	Part No.	Description	Remark
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q103	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q104	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q106	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q107	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q108	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q451	8-729-040-76	TRANSISTOR KTA1273-Y-AT	
Q452	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q453	8-729-600-22	TRANSISTOR 2SA1235-F	
Q454	8-729-038-28	TRANSISTOR RT1N441C-TP-1	
Q455	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF	
Q456	8-729-047-62	TRANSISTOR 2SC3440-T12-1F	
Q457	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF	
Q458	8-729-047-62	TRANSISTOR 2SC3440-T12-1F	
Q459	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF	
Q460	8-729-047-62	TRANSISTOR 2SC3440-T12-1F	
Q461	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF	
Q462	8-729-047-62	TRANSISTOR 2SC3440-T12-1F	
Q463	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q464	8-729-600-22	TRANSISTOR 2SA1235-F	
Q491	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF	
Q492	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q493	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q551	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q552	8-729-037-03	TRANSISTOR KTA1266GR-AT	
Q554	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q555	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q556	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q558	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q560	8-729-038-28	TRANSISTOR RT1N441C-TP-1	
Q561	8-729-038-28	TRANSISTOR RT1N441C-TP-1	
Q562	8-729-038-28	TRANSISTOR RT1N441C-TP-1	
		< RESISTOR >	
R031	1-249-429-11	CARBON 10K 5% 1/4W	
R032	1-249-429-11	CARBON 10K 5% 1/4W	
R033	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R034	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R035	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R036	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R037	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R038	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R041	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R042	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R043	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R044	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R045	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R046	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R047	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R048	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R049	1-216-793-11	METAL CHIP 4.7 5% 1/10W	
R050	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R051	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R052	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R053	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R054	1-216-833-11	METAL CHIP 10K 5% 1/10W	

MAIN

Ref. No.	Part No.	Description			Remark
R055	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R056	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R057	1-216-797-11	METAL CHIP	10	5%	1/10W
R058	1-216-821-11	METAL CHIP	1K	5%	1/10W
R059	1-249-426-11	CARBON	5.6K	5%	1/4W
R060	1-249-426-11	CARBON	5.6K	5%	1/4W
R061	1-216-797-11	METAL CHIP	10	5%	1/10W
R062	1-216-833-11	METAL CHIP	10K	5%	1/10W
R063	1-216-841-11	METAL CHIP	47K	5%	1/10W
R064	1-216-839-11	METAL CHIP	33K	5%	1/10W
R065	1-216-837-11	METAL CHIP	22K	5%	1/10W
R066	1-216-837-11	METAL CHIP	22K	5%	1/10W
R067	1-216-809-11	METAL CHIP	100	5%	1/10W
R068	1-216-864-11	SHORT CHIP	0		
R070	1-216-841-11	METAL CHIP	47K	5%	1/10W
R071	1-216-846-11	METAL CHIP	120K	5%	1/10W
R072	1-216-837-11	METAL CHIP	22K	5%	1/10W
R073	1-216-839-11	METAL CHIP	33K	5%	1/10W
R074	1-216-841-11	METAL CHIP	47K	5%	1/10W
R075	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R076	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R077	1-216-837-11	METAL CHIP	22K	5%	1/10W
R078	1-216-837-11	METAL CHIP	22K	5%	1/10W
R079	1-216-845-11	METAL CHIP	100K	5%	1/10W
R080	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R101	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R102	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R103	1-216-845-11	METAL CHIP	100K	5%	1/10W
R104	1-216-845-11	METAL CHIP	100K	5%	1/10W
R105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R106	1-216-833-11	METAL CHIP	10K	5%	1/10W
R107	1-216-849-11	METAL CHIP	220K	5%	1/10W
R108	1-216-849-11	METAL CHIP	220K	5%	1/10W
R109	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W
R111	1-216-841-11	METAL CHIP	47K	5%	1/10W
R112	1-216-841-11	METAL CHIP	47K	5%	1/10W
R115	1-216-821-11	METAL CHIP	1K	5%	1/10W
R116	1-216-821-11	METAL CHIP	1K	5%	1/10W
R117	1-216-837-11	METAL CHIP	22K	5%	1/10W
R118	1-216-837-11	METAL CHIP	22K	5%	1/10W
R119	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R120	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R121	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R122	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R123	1-216-833-11	METAL CHIP	10K	5%	1/10W
R124	1-216-833-11	METAL CHIP	10K	5%	1/10W
R125	1-216-833-11	METAL CHIP	10K	5%	1/10W
R126	1-216-833-11	METAL CHIP	10K	5%	1/10W
R127	1-216-838-11	METAL CHIP	27K	5%	1/10W
R128	1-216-838-11	METAL CHIP	27K	5%	1/10W
R129	1-216-845-11	METAL CHIP	100K	5%	1/10W
R130	1-216-845-11	METAL CHIP	100K	5%	1/10W
R131	1-216-839-11	METAL CHIP	33K	5%	1/10W
R132	1-216-839-11	METAL CHIP	33K	5%	1/10W
R133	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R134	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R135	1-216-838-11	METAL CHIP	27K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R136	1-216-838-11	METAL CHIP	27K	5%	1/10W
R137	1-216-841-11	METAL CHIP	47K	5%	1/10W
R138	1-216-841-11	METAL CHIP	47K	5%	1/10W
R139	1-216-841-11	METAL CHIP	47K	5%	1/10W
R140	1-216-841-11	METAL CHIP	47K	5%	1/10W
R141	1-216-841-11	METAL CHIP	47K	5%	1/10W
R142	1-216-841-11	METAL CHIP	47K	5%	1/10W
R143	1-216-809-11	METAL CHIP	100	5%	1/10W
R144	1-216-809-11	METAL CHIP	100	5%	1/10W
R145	1-216-834-11	METAL CHIP	12K	5%	1/10W
R146	1-216-834-11	METAL CHIP	12K	5%	1/10W
R147	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R148	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R149	1-216-821-11	METAL CHIP	1K	5%	1/10W
R150	1-216-821-11	METAL CHIP	1K	5%	1/10W
R151	1-216-821-11	METAL CHIP	1K	5%	1/10W
R152	1-216-821-11	METAL CHIP	1K	5%	1/10W
R153	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R154	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R155	1-216-864-11	SHORT CHIP	0		
R156	1-216-864-11	SHORT CHIP	0		
R157	1-216-841-11	METAL CHIP	47K	5%	1/10W (GNZ444D)
R158	1-216-841-11	METAL CHIP	47K	5%	1/10W (GNZ444D)
R159	1-216-797-11	METAL CHIP	10	5%	1/10W
R160	1-216-797-11	METAL CHIP	10	5%	1/10W
R161	1-216-801-11	METAL CHIP	22	5%	1/10W
R162	1-216-801-11	METAL CHIP	22	5%	1/10W
R163	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R164	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R165	1-216-845-11	METAL CHIP	100K	5%	1/10W
R166	1-216-845-11	METAL CHIP	100K	5%	1/10W
R167	1-247-807-31	CARBON	100	5%	1/4W
R168	1-247-807-31	CARBON	100	5%	1/4W
R169	1-247-807-31	CARBON	100	5%	1/4W
R170	1-247-807-31	CARBON	100	5%	1/4W
R171	1-247-807-31	CARBON	100	5%	1/4W
R172	1-247-807-31	CARBON	100	5%	1/4W
R173	1-247-807-31	CARBON	100	5%	1/4W
R174	1-247-807-31	CARBON	100	5%	1/4W
R175	1-216-809-11	METAL CHIP	100	5%	1/10W
R176	1-216-809-11	METAL CHIP	100	5%	1/10W
R177	1-247-807-31	CARBON	100	5%	1/4W
R178	1-247-807-31	CARBON	100	5%	1/4W
R179	1-216-801-11	METAL CHIP	22	5%	1/10W
R180	1-216-801-11	METAL CHIP	22	5%	1/10W
R181	1-216-837-11	METAL CHIP	22K	5%	1/10W
R182	1-216-837-11	METAL CHIP	22K	5%	1/10W
R183	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R184	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R185	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R186	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R187	1-216-845-11	METAL CHIP	100K	5%	1/10W
R188	1-216-845-11	METAL CHIP	100K	5%	1/10W
R189	1-216-841-11	METAL CHIP	47K	5%	1/10W
R190	1-216-841-11	METAL CHIP	47K	5%	1/10W
R191	1-216-841-11	METAL CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R192	1-216-841-11	METAL CHIP	47K	5%	1/10W
R193	1-216-846-11	METAL CHIP	120K	5%	1/10W
R194	1-216-846-11	METAL CHIP	120K	5%	1/10W
R195	1-216-842-11	METAL CHIP	56K	5%	1/10W
R196	1-216-842-11	METAL CHIP	56K	5%	1/10W
R197	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R198	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R199	1-216-809-11	METAL CHIP	100	5%	1/10W
R200	1-216-809-11	METAL CHIP	100	5%	1/10W
R201	1-216-833-11	METAL CHIP	10K	5%	1/10W
R202	1-216-833-11	METAL CHIP	10K	5%	1/10W
R205	1-216-841-11	METAL CHIP	47K	5%	1/10W
R206	1-216-841-11	METAL CHIP	47K	5%	1/10W
R207	1-216-809-11	METAL CHIP	100	5%	1/10W
R208	1-216-809-11	METAL CHIP	100	5%	1/10W
R209	1-216-809-11	METAL CHIP	100	5%	1/10W
R210	1-216-809-11	METAL CHIP	100	5%	1/10W
R213	1-216-857-11	METAL CHIP	1M	5%	1/10W
R214	1-216-841-11	METAL CHIP	47K	5%	1/10W
R215	1-216-833-11	METAL CHIP	10K	5%	1/10W
R216	1-216-833-11	METAL CHIP	10K	5%	1/10W
R217	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R218	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R219	1-216-821-11	METAL CHIP	1K	5%	1/10W
R400	1-216-833-11	METAL CHIP	10K	5%	1/10W
R401	1-216-809-11	METAL CHIP	100	5%	1/10W
R402	1-216-809-11	METAL CHIP	100	5%	1/10W
R403	1-216-809-11	METAL CHIP	100	5%	1/10W
R404	1-216-809-11	METAL CHIP	100	5%	1/10W
R405	1-216-809-11	METAL CHIP	100	5%	1/10W
R406	1-216-821-11	METAL CHIP	1K	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-809-11	METAL CHIP	100	5%	1/10W
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R412	1-216-809-11	METAL CHIP	100	5%	1/10W
R413	1-216-809-11	METAL CHIP	100	5%	1/10W
R414	1-216-809-11	METAL CHIP	100	5%	1/10W
R415	1-216-809-11	METAL CHIP	100	5%	1/10W
R416	1-216-809-11	METAL CHIP	100	5%	1/10W
R417	1-216-809-11	METAL CHIP	100	5%	1/10W
R418	1-216-809-11	METAL CHIP	100	5%	1/10W
R419	1-216-809-11	METAL CHIP	100	5%	1/10W
R420	1-216-809-11	METAL CHIP	100	5%	1/10W
R421	1-216-845-11	METAL CHIP	100K	5%	1/10W
R422	1-216-837-11	METAL CHIP	22K	5%	1/10W
R425	1-216-815-11	METAL CHIP	330	5%	1/10W (E3,E15)
R425	1-216-819-11	METAL CHIP	680	5%	1/10W (E12)
R425	1-216-821-11	METAL CHIP	1K	5%	1/10W (EA)
R425	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (E13)
R425	1-216-864-11	SHORT CHIP	0 (PH,SP,TH)		
R426	1-216-811-11	METAL CHIP	150	5%	1/10W (E13)
R426	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (E3,E12,E15,EA)
R427	1-216-821-11	METAL CHIP	1K	5%	1/10W
R428	1-216-821-11	METAL CHIP	1K	5%	1/10W
R429	1-216-821-11	METAL CHIP	1K	5%	1/10W
R430	1-216-817-11	METAL CHIP	470	5%	1/10W
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R432	1-216-809-11	METAL CHIP	100	5%	1/10W
R433	1-216-809-11	METAL CHIP	100	5%	1/10W
R434	1-216-809-11	METAL CHIP	100	5%	1/10W
R435	1-216-821-11	METAL CHIP	1K	5%	1/10W
R436	1-216-821-11	METAL CHIP	1K	5%	1/10W
R437	1-216-809-11	METAL CHIP	100	5%	1/10W
R438	1-216-809-11	METAL CHIP	100	5%	1/10W
R439	1-216-809-11	METAL CHIP	100	5%	1/10W
R440	1-216-809-11	METAL CHIP	100	5%	1/10W
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-809-11	METAL CHIP	100	5%	1/10W
R443	1-216-809-11	METAL CHIP	100	5%	1/10W
R444	1-216-841-11	METAL CHIP	47K	5%	1/10W
R445	1-216-837-11	METAL CHIP	22K	5%	1/10W
R446	1-216-841-11	METAL CHIP	47K	5%	1/10W
R447	1-216-841-11	METAL CHIP	47K	5%	1/10W
R448	1-216-841-11	METAL CHIP	47K	5%	1/10W
R449	1-216-845-11	METAL CHIP	100K	5%	1/10W
R451	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R452	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R453	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R454	1-216-849-11	METAL CHIP	220K	5%	1/10W
R455	1-216-853-11	METAL CHIP	470K	5%	1/10W
R456	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R457	1-216-839-11	METAL CHIP	33K	5%	1/10W
R458	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R459	1-216-841-11	METAL CHIP	47K	5%	1/10W
R460	1-216-817-11	METAL CHIP	470	5%	1/10W
R461	1-216-817-11	METAL CHIP	470	5%	1/10W
R462	1-216-841-11	METAL CHIP	47K	5%	1/10W
R463	1-216-841-11	METAL CHIP	47K	5%	1/10W
R464	1-216-817-11	METAL CHIP	470	5%	1/10W
R465	1-216-817-11	METAL CHIP	470	5%	1/10W
R466	1-216-841-11	METAL CHIP	47K	5%	1/10W
R467	1-216-841-11	METAL CHIP	47K	5%	1/10W
R468	1-216-817-11	METAL CHIP	470	5%	1/10W
R469	1-216-817-11	METAL CHIP	470	5%	1/10W
R470	1-216-841-11	METAL CHIP	47K	5%	1/10W
R471	1-216-841-11	METAL CHIP	47K	5%	1/10W
R472	1-216-817-11	METAL CHIP	470	5%	1/10W
R473	1-216-817-11	METAL CHIP	470	5%	1/10W
R474	1-216-841-11	METAL CHIP	47K	5%	1/10W
R475	1-216-821-11	METAL CHIP	1K	5%	1/10W
R476	1-216-821-11	METAL CHIP	1K	5%	1/10W
R477	1-216-821-11	METAL CHIP	1K	5%	1/10W
R478	1-216-821-11	METAL CHIP	1K	5%	1/10W
R479	1-216-821-11	METAL CHIP	1K	5%	1/10W
R480	1-216-821-11	METAL CHIP	1K	5%	1/10W
R481	1-216-821-11	METAL CHIP	1K	5%	1/10W
R482	1-216-837-11	METAL CHIP	22K	5%	1/10W
R483	1-216-837-11	METAL CHIP	22K	5%	1/10W

MAIN **MIC**

Ref. No.	Part No.	Description			Remark
R484	1-216-837-11	METAL CHIP	22K	5%	1/10W
R485	1-216-837-11	METAL CHIP	22K	5%	1/10W
R486	1-216-837-11	METAL CHIP	22K	5%	1/10W
R487	1-216-837-11	METAL CHIP	22K	5%	1/10W
R488	1-216-837-11	METAL CHIP	22K	5%	1/10W
R489	1-216-809-11	METAL CHIP	100	5%	1/10W
R490	1-216-805-11	METAL CHIP	47	5%	1/10W
R491	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R492	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R493	1-216-845-11	METAL CHIP	100K	5%	1/10W
R494	1-216-833-11	METAL CHIP	10K	5%	1/10W
R495	1-216-841-11	METAL CHIP	47K	5%	1/10W
R496	1-216-837-11	METAL CHIP	22K	5%	1/10W
R497	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R498	1-216-837-11	METAL CHIP	22K	5%	1/10W
R499	1-216-841-11	METAL CHIP	47K	5%	1/10W
R551	1-216-837-11	METAL CHIP	22K	5%	1/10W
R552	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
					(GNZ444D)
R554	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R555	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R556	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R557	1-216-837-11	METAL CHIP	22K	5%	1/10W
R558	1-216-864-11	SHORT CHIP	0		
R559	1-216-864-11	SHORT CHIP	0		
R561	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R562	1-216-841-11	METAL CHIP	47K	5%	1/10W
R563	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R564	1-216-841-11	METAL CHIP	47K	5%	1/10W
R565	1-216-864-11	SHORT CHIP	0		
R566	1-216-821-11	METAL CHIP	1K	5%	1/10W
R569	1-216-851-11	METAL CHIP	330K	5%	1/10W
R570	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R571	1-216-841-11	METAL CHIP	47K	5%	1/10W
R572	1-216-837-11	METAL CHIP	22K	5%	1/10W
R573	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R574	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R575	1-216-833-11	METAL CHIP	10K	5%	1/10W
R578	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R579	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R580	1-216-864-11	SHORT CHIP	0		
R581	1-216-864-11	SHORT CHIP	0		
R582	1-216-864-11	SHORT CHIP	0		
R583	1-216-864-11	SHORT CHIP	0		
R585	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R586	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R587	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R588	1-247-791-11	CARBON	22	5%	1/4W
R589	1-247-791-11	CARBON	22	5%	1/4W
R590	1-247-791-11	CARBON	22	5%	1/4W
R591	1-216-833-11	METAL CHIP	10K	5%	1/10W
R592	1-216-833-11	METAL CHIP	10K	5%	1/10W
R593	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R594	1-216-843-11	METAL CHIP	68K	5%	1/10W
R595	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R597	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R599	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R600	1-216-833-11	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R601	1-249-403-11	CARBON	68	5%	1/4W
R602	1-249-403-11	CARBON	68	5%	1/4W
R603	1-216-809-11	METAL CHIP	100	5%	1/10W
R604	1-249-401-11	CARBON	47	5%	1/4W
R605	1-216-841-11	METAL CHIP	47K	5%	1/10W
R606	1-216-833-11	METAL CHIP	10K	5%	1/10W
R607	1-216-817-11	METAL CHIP	470	5%	1/10W
R608	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R609	1-216-821-11	METAL CHIP	1K	5%	1/10W
R610	1-216-841-11	METAL CHIP	47K	5%	1/10W
R611	1-216-813-11	METAL CHIP	220	5%	1/10W
R612	1-216-813-11	METAL CHIP	220	5%	1/10W
R613	1-216-821-11	METAL CHIP	1K	5%	1/10W
R702	1-218-285-11	METAL CHIP	75	5%	1/10W
R703	1-216-845-11	METAL CHIP	100K	5%	1/10W
R704	1-216-833-11	METAL CHIP	10K	5%	1/10W
R706	1-216-864-11	SHORT CHIP	0		
R707	1-216-864-11	SHORT CHIP	0		
R708	1-216-864-11	SHORT CHIP	0		
R710	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< RELAY >			
RY551	1-755-307-11	RELAY			
		< TERMINAL BOARD >			
TB101	1-536-708-81	TERMINAL BOARD, PUSH (4P) (SPEAKER)			
		< CABLE HOLDER >			
WH011	1-820-830-11	HOLDER, CABLE 6P			
WH012	1-819-972-11	HOLDER, CABLE 8P			
WH106	1-820-973-11	HOLDER, CABLE 10P			
		< VIBRATOR >			
X401	1-813-994-11	VIBRATOR, CRYSTAL (32.768kHz)			
X402	1-795-721-21	VIBRATOR, CERAMIC (20MHz)			
**********					
		MIC BOARD			
		**********			
		< CAPACITOR >			
C261	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C262	1-126-956-11	ELECT	0.1uF	20%	50V
C264	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C265	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C266	1-216-864-11	SHORT CHIP	0		
C267	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C268	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C269	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C270	1-126-923-11	ELECT	220uF	20%	10V
C271	1-104-655-11	ELECT	470uF	20%	6.3V
C273	1-126-964-11	ELECT	10uF	20%	50V
C274	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C275	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C277	1-126-961-11	ELECT	2.2uF	20%	50V
C278	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C279	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C280	1-165-908-11	CERAMIC CHIP	1uF	10%	10V

Ref. No.	Part No.	Description			Remark
C281	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C282	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C283	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C284	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< GROUND TERMINAL >			
ET261	1-537-771-21	TERMINAL BOARD, GROUND			
		< IC >			
IC261	8-759-100-96	IC uPC4558G2			
		< JACK >			
J261	1-816-573-11	JACK (MIC)			
		< JUMPER RESISTOR >			
JR201	1-216-864-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q261	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		< RESISTOR >			
R261	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R262	1-216-845-11	METAL CHIP	100K	5%	1/10W
R263	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R264	1-216-848-11	METAL CHIP	180K	5%	1/10W
R265	1-216-844-11	METAL CHIP	82K	5%	1/10W
R266	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R267	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R268	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R269	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R272	1-216-841-11	METAL CHIP	47K	5%	1/10W
R273	1-216-841-11	METAL CHIP	47K	5%	1/10W
R274	1-216-809-11	METAL CHIP	100	5%	1/10W
R275	1-216-801-11	METAL CHIP	22	5%	1/10W
R277	1-216-845-11	METAL CHIP	100K	5%	1/10W
R278	1-216-864-11	SHORT CHIP	0		
R279	1-216-833-11	METAL CHIP	10K	5%	1/10W
R280	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R281	1-216-809-11	METAL CHIP	100	5%	1/10W
R282	1-216-845-11	METAL CHIP	100K	5%	1/10W
R283	1-216-864-11	SHORT CHIP	0		
R284	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
		< VARIABLE RESISTOR >			
RV261	1-223-983-11	RES, VAR, CARBON 50K (MIC LEVEL)			
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	A-1223-656-A	PANEL BOARD, COMPLETE			
		**********			
	2-649-178-01	PLATE, LIGHT GUIDE			
	2-649-179-01	SHEET (LCD)			
	2-665-175-01	SHEET (REFLECTOR)			
		< CAPACITOR >			
C301	1-126-947-11	ELECT	47uF	20%	35V
C303	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V

Ref. No.	Part No.	Description			Remark
C304	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C305	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C310	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
		< CONNECTOR >			
CN301	1-784-737-11	CONNECTOR, FFC 15P			
CN302	1-784-727-11	CONNECTOR, FFC 5P			
		< DIODE >			
D303	6-501-479-01	LED 1L0341Y23E0CA602 (LCD BACK LIGHT)			
		< IC >			
IC301	6-710-490-01	IC LC75827E-E			
IC302	6-600-349-31	IC NJL24H400A (IR)			
		< LIQUID CRYSTAL DISPLAY >			
ND301	1-519-933-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< TRANSISTOR >			
Q301	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		< RESISTOR >			
R301	1-216-840-11	METAL CHIP	39K	5%	1/10W
R302	1-216-809-11	METAL CHIP	100	5%	1/10W
R303	1-216-809-11	METAL CHIP	100	5%	1/10W
R304	1-216-809-11	METAL CHIP	100	5%	1/10W
R305	1-216-809-11	METAL CHIP	100	5%	1/10W
R306	1-216-833-11	METAL CHIP	10K	5%	1/10W
R307	1-216-805-11	METAL CHIP	47	5%	1/10W
R308	1-216-806-11	METAL CHIP	56	5%	1/10W
R309	1-216-806-11	METAL CHIP	56	5%	1/10W
R310	1-216-817-11	METAL CHIP	470	5%	1/10W
R311	1-216-833-11	METAL CHIP	10K	5%	1/10W
R312	1-216-837-11	METAL CHIP	22K	5%	1/10W
R313	1-216-837-11	METAL CHIP	22K	5%	1/10W
R314	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R315	1-216-811-11	METAL CHIP	150	5%	1/10W
R316	1-216-833-11	METAL CHIP	10K	5%	1/10W
R317	1-216-833-11	METAL CHIP	10K	5%	1/10W
R318	1-216-833-11	METAL CHIP	10K	5%	1/10W
R319	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R320	1-216-806-11	METAL CHIP	56	5%	1/10W
R321	1-216-821-11	METAL CHIP	1K	5%	1/10W
R322	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R324	1-216-821-11	METAL CHIP	1K	5%	1/10W
R325	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
		< SWITCH >			
S301	1-786-417-11	ENCODER, ROTARY (VOLUME)			
S303	1-762-875-21	SWITCH, KEYBOARD (■)			
S304	1-762-875-21	SWITCH, KEYBOARD (DVD ►)			
S305	1-762-875-21	SWITCH, KEYBOARD (❚❚)			
S311	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)			
S312	1-762-875-21	SWITCH, KEYBOARD (I◄◄ – PRESET)			
S313	1-762-875-21	SWITCH, KEYBOARD (PRESET + ►►I)			
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PT REG

Ref. No.	Part No.	Description	Remark
		PT BOARD	
		*********	
	1-533-217-41	HOLDER, FUSE	
		< CONNECTOR >	
CN001	1-819-134-11	PIN, CONNECTOR 6P	
CN002	1-819-136-11	PIN, CONNECTOR 8P	
CN003	1-793-660-11	PIN, CONNECTOR (PC BOARD) 3P (TH)	
		< DIODE >	
D001	6-500-335-01	DIODE MC2838-T112-1	
D002	6-500-334-01	DIODE MC2836-T112-1	
D003	6-500-335-01	DIODE MC2838-T112-1	
D004	8-719-991-33	DIODE 1SS133T-77	
		< FUSE >	
⚠F001	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG) (T8AL/250V)	
⚠F002	1-533-949-33	FUSE, CYLINDRICAL (TIME LAG) (T8AL/250V)	
⚠F003	1-532-464-33	FUSE (T2.5AL/250V)	
⚠F004	1-532-502-33	FUSE (T1.25AL/250V)	
		< TRANSFORMER >	
⚠L001	1-443-993-11	TRANSFORMER, LINE FILTER (LFT)	
		< RELAY >	
⚠RY002	1-755-496-11	RELAY	
		< SWITCH >	
⚠S001	1-786-408-11	SELECTOR, VOLTAGE (SWS-2301) (VOLTAGE SELECTOR) (EXCEPT E13)	
		< TRANSFORMER >	
⚠T002	1-445-105-11	TRANSFORMER, POWER (SUB)	
**********			
		REG BOARD	
		**********	
		< CAPACITOR >	
C801	1-100-566-11	CERAMIC CHIP 0.1uF 10% 25V	
C802	1-100-566-11	CERAMIC CHIP 0.1uF 10% 25V	
		< IC >	
IC801	6-703-550-01	IC TA7809LS	
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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
64	1-831-755-21	CABLE, FLEXIBLE FLAT (5 CORE)	
65	1-828-895-51	WIRE (FLAT TYPE) (15 CORE)	
102	1-831-769-21	CABLE, FLEXIBLE FLAT (9 CORE)	
⚠151	1-830-384-11	CORD, POWER (EXCEPT EA,TH)	
⚠151	1-830-891-11	CORD, POWER (EA)	
⚠151	1-834-288-11	CORD, POWER (TH)	
⚠154	1-770-019-61	ADAPTOR, CONVERSION PLUG (EA)	
⚠155	1-569-008-22	ADAPTOR, CONVERSION 2P (E3,E15,EA,PH,SP)	
205	1-834-269-21	CABLE, FLEXIBLE FLAT (13 CORE)	
206	1-828-290-51	WIRE (FLAT TYPE) (5 CORE)	
207	1-828-364-51	WIRE (FLAT TYPE) (19 CORE)	
208	1-828-976-51	WIRE (FLAT TYPE) (13 CORE)	
256	1-797-575-11	DECK, MECHANICAL	
261	1-833-801-21	CABLE, FLEXIBLE FLAT (9 CORE)	
301	1-797-193-51	MECHANICAL, CD	
304	1-828-772-51	WIRE (FLAT TYPE) (24 CORE)	
⚠307	8-820-322-04	OPTICAL PICK-UP (KHM313CAB/C2RP)	
FAN001	1-787-319-12	FAN, DC	
FC001	1-400-990-11	CORE, FERRITE	
FC002	1-500-868-11	CORE, FERRITE	
⚠T001	1-445-127-11	TRANSFORMER, POWER (MAIN) (EXCEPT EA)	
⚠T001	1-445-198-11	TRANSFORMER, POWER (MAIN) (EA)	
TN001	1-693-727-11	TUNER (FM/AM) (ANTENNA)	

MEMO

REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2007.05	New
1.1	2007.08	Error correction of TEST MODE. (SPM-07033)
1.2	2007.10	Attention sentence EEPROM to exchange DMB16 board is deleted. (SPM-07091)
1.3	2008.05	Addition of system model name for MHC-GNZ333DL.
1.4	2008.09	IC401 of MAIN board is changed to the repair parts. (SMR-08118)